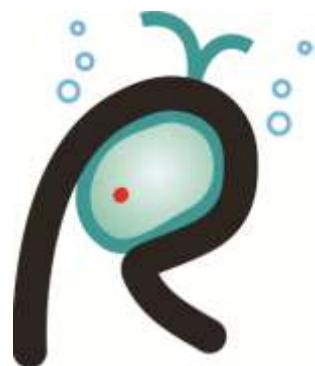


MCC-NIES
List of Strains, 9th Edition (2013)
Microalgae, Endangered Macroalgae and Protists

**Microbial Culture Collection
(MCC) at National Institute for
Environmental Studies (NIES)**



**Core facility for algal resources
of National BioResource
Project (NBRP)**



**Kawachi, M., Ishimoto, M., Mori, F., Yumoto, K., Sato, M., Noël, M.-H.
2013. MCC-NIES List of Strains, 9th Edition, Microbial Culture
Collection at National Institute for Environmental Studies, Tsukuba,
Japan.**

<http://mcc.nies.go.jp/>

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II. LIST OF STRAINS

1. How to use the list of strains

The strains are listed in alphabetical order of their scientific name. Same species of strains are arranged according to their strain numbers. The strain number assigned to a given strain remains the same, regardless of any change in nomenclature or re-identification. We request that users hyphenated the strain number with the acronym “NIES”, e.g. “NIES-44”. A detailed example of a strain description is as follows:

MICROCYSTIS¹⁾ : Cyanophyceae²⁾

Microcystis aeruginosa (Kützing) Lemmermann³⁾

Syn.⁴⁾ *Microcystis aeruginosa* (Kützing) Kützing, *M. ichthyoblabe* Kützing, *M. novacekii* (Komárek) Compère, *M. viridis* (A. Braun) Lemmermann, *M. wesenbergii* (Komárek) Komárek in Kondrateva

44⁵⁾ History⁶⁾: <IAM Other collection strain no⁷⁾: IAM M-176 **Locality⁸⁾:** Lake Kasumigaura/Ibaraki/ Japan(1974-08-**) **Isolator⁹⁾:** Watanabe, Makoto M. **Identified by¹⁰⁾:** Watanabe, Makoto M. **Formerly identified as¹¹⁾:** *Microcystis aeruginosa* (Kützing) Lemmermann f. *aeruginosa* States¹²⁾. Unialgal; Clonal; Axenic **Culture conditions¹³⁾:** CB; 25°C; 20-30 µmol/m²/s; 20 D **Habitat¹⁴⁾:** Freshwater (lake water) **Characteristics¹⁵⁾:** Cyanobacterial water bloom (aoko) **Gene data¹⁶⁾:** 16S rRNA (AB015361); 16S-23S ITS region (AB015361) **Other strain no.¹⁷⁾:** TAC 44 **References¹⁸⁾:** 1,2 **Remarks¹⁹⁾:** Cryopreserved

1) Genus name.

2) Class name: If the class name is uncertain, we use “*incertae sedis*” with the phylum name, e.g. Metamonada *incertae sedis*.

3) Scientific name with authority: We put the genus or species name in single quotation marks (such as ‘*Chlorella*’ *saccharophila* or ‘*Chlorella ellipoidea*’), if the polyphly of genera or species is clear from DNA sequencing. In the cyanobacterial genus *Anabaena*, scientific names followed by * indicate those identified without observation on akinete position and morphology.

4) Synonym(s).

5) Strain number: Please add a hyphen and the acronym NIES before the number, e.g. “NIES-44”.

6) History: How and by whom the strain was deposited in the MCC-NIES through other culture collections, researchers or an isolator. Deposit year is shown in parentheses if available.

7) Other collection strain no.: Strain designation in other culture collections or institutions. Acronyms placed before strain numbers refer to the following culture collections and institutions:

ATCC	: American Type Culture Collection, U.S.A.
CAUP	: Culture Collection of Algae of Charles University of Prague, Czech
CCAP	: Culture Collection of Algae and Protozoa, U.K.
CCMP	: The Provasoli-Guillard National Center for Culture of Marine Phytoplankton, U.S.A.
CRC	: <i>Chlamydomonas</i> Resource Centre, U.S.A.
IAM	: Institute of Molecular and Cellular Biosciences, University of Tokyo, Japan (Almost all algal strains were moved to the MCC-NIES until the end of March 2007, when the IAM Collection was closed.)
IFO	: Institute for Fermentation, Osaka, Japan
IPPPAS	: Culture Collection of Microalgae, Institute of Plant Physiology, Russian Academy of Sciences, Russia
JCM	: Japan Collection of Microorganisms, RIKEN, Japan
KAGAWA	: Akashiwo Research Institute of Kagawa Prefecture, Japan
NIVA	: Norwegian Institute for Water Research, Norway
PCC	: Pasteur Culture Collection of Cyanobacteria, Institut Pasteur, France
RCC	: Roscoff Culture Collection, France
SAG	: Culture Collection of Algae at the University of Göttingen, Germany
TAC	: Tsukuba Botanical Garden, National Science Museum, Japan (Almost all algal strains were deposited to the MCC-NIES.)
TISTR	: Thailand Institute of Scientific and Technological Research, Thailand
TKB	: Graduate School of Life and Environmental Science, University of Tsukuba, Japan
UTEX	: The Culture Collection of Algae at the University of Texas at Austin, U.S.A. (Formerly BIU,

The Culture Collection of Algae at the Indiana University, Bloomington)

- 8) Locality: The place where the strain was collected, in order of place/prefecture/country, if full data are available, with collection date in parentheses if available.
- 9) Isolator's name in order of family name, then first name.
- 10) Identified by: The person who gave the scientific name shown herein in order of family name, then first name. If the strain was re-identified, the re-identifying person(s) is also shown. If re-identification was conducted at the MCC-NIES by DNA sequencing, this is shown as "Re-identified at NIES by DNA sequencing". If scientific names were found to be proper by DNA sequencing, this is shown as "Confirmed at NIES by DNA sequencing".
- 11) Formerly identified as: The scientific name that was formerly used and mostly found to be misidentified after re-identification by DNA sequencing and/or detailed morphological studies. In the case of the cyanobacterium *Microcystis aeruginosa*, formerly used morpho-species names are indicated, if available.
- 12) States: The state of culture strains, indicating whether or not they are unicellular, clonal, and axenic. Axenic state is indicated with the last check as follow: [2013 Jan]. For coccolithophorids, check of cell covering is indicated as follow: Coccolith bearing cells (+); now as naked cells Coccolith (-); and under recovery for coccoliths bearing stage (+/-).
- 13) Culture conditions: In order of medium [with (agar) or (semi-solid) if medium is a agar slant or a soft agar medium; unless otherwise noted the phase of medium is liquid], culture temperature, illumination as photon flux density, interval for subculture maintenance (Days or Months), with pre-culture conditions for active growth (culture temperature and photon flux density) in parentheses, if necessary. The light-dark photo-regime is 12 h light and 12 h dark.
- 14) Habitat: The habitats specified by the depositors, with the source of isolation in parentheses. We often use "Freshwater" "Brackish" "Marine" "Salt water" "Hot spring" or "Terrestrial" to indicate the habitat of the strain.
- 15) Characteristics: Environmental, physiological, taxonomic, and miscellaneous characteristics of the strains. We use "Authentic strain" for strains used as a basis for the description of new species of eukaryotic algae and protozoa, and "Type strain" for cyanobacterial type strains. For the cyanobacterium *Microcystis aeruginosa*, we also show the sequence type (ST) to clarify the genetic diversity within a same single species. For endangered species, we show the categories revised by the Ministry of Environment in 2007 (<http://www.env.go.jp/press/press.php?serial=8648>); i.e. CR+EN (critically endangered and endangered), VU (vulnerable), and NT (near threatened).
- 16) Gene data: Gene names, with accession numbers in parentheses. Note that serial numbers are summarized as follow: series from AU294770 to AU295959 is noted as AU294770-5959.
- 17) Other strain no.: Strain designation given by isolators.
- 18) References: Publications in which the strain was used. The number corresponds to publications listed below in section VIII.
- 19) Remarks: Notes relevant to ordering, such as "Cryopreserved", "Toxic", "Unstable", "Very slow growth", "Fragile species to transportation stresses", or "Fragile species to temperature changes".
Cryopreserved: we deliver "Cryopreserved" strains after thawing and recovery of cells to normal culture growth, so that a longer time is required when ordering "Cryopreserved" strains, though their viability is ensured.
Toxic: for "Toxic" strains, caution in handling is required.
Unstable: "Unstable" strains are sometimes not available if their growth is poor at that time, and are usually difficult to maintain permanently at the MCC-NIES.
Very slow growth: if you order such strain you need to wait till the cell population will be sufficient.
Fragile species to transportation stresses: we may need several trials to deliver successfully fragile strains, or we may not be able to deliver them, note that you are welcome to visit the culture collection and pick up the strain on your own.
Fragile species to temperature changes: some strains are more sensitive to temperature changes than others, restriction during severe seasons might occur.

2. List of strains

ACARYOCHLORIS : Cyanophyceae

Acaryochloris marina Miyashita et Chihara

- 2412 **History:** < Miyashita, Hideaki **Locality:** Hokkaido University Marine Station/Hokkaido/Japan (2004-06-20) **Isolator:** Miyashita, Hideaki **Identified by:** Miyashita, Hideaki (2004-08-**) **States:** Unialgal **Culture conditions:** IMK; 20°C; 70-90µmol/m²/s; 1 M **Habitat:** Marine (Seaweed) **Characteristics:** Halophilic; Contains chlorophyll d **Other strain no.:** Muroran strain

ACHNANTHES : Bacillariophyceae

Achnanthes kuwaitensis Hendey

- 1349 **History:** < Mayama, Shigeki **Locality:** Morito Beach/Kanagawa/Japan (2003-04-19) **Isolator:** Shono, Naoko **Identified by:** Mayama, Shigeki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 15-27µmol/m²/s; 2 M **Habitat:** Marine (A polyethylene bag on a beach)

Achnanthes subconstricta (Meister) Toyoda

- 330 **History:** < Sawaguchi, Tomohiro **Locality:** Imaihamo/Shizuoka/Japan (1985-05-22) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Nagumo, Tamotsu **Formerly identified as:** Achnanthes longipes Agardh **States:** Unialgal; Clonal; Axenic[2012 Nov] **Culture conditions:** f/2; 10°C; 15-20µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Other strain no.:** IMHB-5 **References:** 137, 328

ACHNANTHIDIUM : Bacillariophyceae

Achnanthidium minutissimum (Kützing) Czarnecki

Syn. *Achnanthes minutissima* Kützing

- 71 **History:** < Yuri, Akira **Locality:** Kosaka River/Akita/Japan (1983-04-19) **Isolator:** Yuri, Akira **Identified by:** Mizuno, Makoto **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Freshwater (River water) **Other strain no.:** A15-6 **References:** 137, 565, 625, 838, 1017, 1018

- 407 **History:** < Kasai, Fumie **Locality:** Miyata River/Ibaraki/Japan (1987-05-22) **Isolator:** Kasai, Fumie **Identified by:** Takamura, Noriko **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSi; 15°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (River water) **Other strain no.:** 4st-0-8 **Reference:** 1018

- 408 **History:** < Kasai, Fumie **Locality:** Watarase River System/Gunma/Japan (1987-08-15) **Isolator:** Kasai, Fumie **Identified by:** Idei, Masahiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi; 15°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (River water) **Other strain no.:** AT5-23 **Reference:** 1018

- 409 **History:** < Kasai, Fumie **Locality:** Watarase River System/Gunma/Japan (1987-08-15) **Isolator:** Kasai, Fumie **Identified by:** Idei, Masahiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi; 15°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (River water) **Other strain no.:** Ast-3-3 **Reference:** 1018

- 410 **History:** < Kasai, Fumie **Locality:** Watarase River System/Gunma/Japan (1987-08-15) **Isolator:** Kasai, Fumie **Identified by:** Takamura, Noriko **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSi; 15°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (River water) **Other strain no.:** AT4-18 **Reference:** 1018

- 411 **History:** < Kasai, Fumie **Locality:** Miyata River/Ibaraki/Japan (1987-02-25) **Isolator:** Kasai, Fumie **Identified by:** Takamura, Noriko **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSi; 15°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (River water) **Other strain no.:** 1st-3-17 **References:** 1017, 1018

- 412 **History:** < Kasai, Fumie **Locality:** Miyata River/Ibaraki/Japan (1987-02-25) **Isolator:** Kasai,

Fumie **Identified by:** Takamura, Noriko **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSi; 15°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (River water) **Other strain no.:** 1st-1-1 **References:** 1017, 1018

413 **History:** < Kasai, Fumie **Locality:** Miyata River/Ibaraki/Japan (1987-02-25) **Isolator:** Kasai, Fumie **Identified by:** Takamura, Noriko **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSi; 15°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (River water) **Other strain no.:** 1st-2-8 **References:** 1017, 1018

414 **History:** < Kasai, Fumie **Locality:** Ooe River (Ozegahara)/Fukushima/Japan (1987-10-16) **Isolator:** Kasai, Fumie **Identified by:** Takamura, Noriko **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSi; 15°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (River water) **Other strain no.:** 0-25 **Reference:** 1018

1350 **History:** < Mayama, Shigeki **Locality:** Tama River/Tokyo/Japan (2002-11-26) **Isolator:** Shono, Naoko **Identified by:** Mayama, Shigeki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi/5; 20°C; 15-27µmol/m²/s; 2 M **Habitat:** Freshwater (River stone) **Characteristics:** Benthic; Epilithic

Achnanthidium minutissimum (Kützing) Czarnecki var. *saprophilum* Kobayasi et Mayama
Syn. *Achnanthes minutissima* Kützing var. *saprophila* Kobayasi et Mayama

372 **History:** < Sawaguchi, Tomohiro **Locality:** Lake Kasumigaura/Ibaraki/Japan (1985-12-19) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Axenic[2012 Mar] **Culture conditions:** CSi; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Freshwater (Plant) **Other strain no.:** KAAC-6

ACINETOSPORA : Phaeophyceae

Acinetospora crinita (Carmichael) Sauvageau

548 **History:** < Kuroiwa, Tsuneyoshi **Locality:** Tuscan/Italy (1991-**-**) **Isolator:** Hagiwara, Tomiji **Identified by:** Sartoni, G. **Formerly identified as:** Tribonema marinum J.Feldmann **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 4-10µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Marine **Gene data:** 18S rRNA (AF038005); CO1 (AF037996); tufA (AF038004) **References:** 75, 137, 245, 886

ACTINASTRUM : Trebouxiophyceae

Actinastrum hantzschii Lagerheim

415 **History:** < Kasai, Fumie **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-07-22) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** F7-4 **References:** 188, 567, 1159 **Remarks:** Cryopreserved

ACTINOPHYS : Nucleohelea

Actinophys sol Ehrenberg

2497 **History:** < Suzaki, Toshinobu **Locality:** Shukkeien Park/Hiroshima/Japan (2001-**-**) **Isolator:** Suzaki, Toshinobu **Identified by:** Suzaki, Toshinobu (2001-**-**) **Culture conditions:** Helio; 20°C; 13-18µmol/m²/s; 7-14 D **Habitat:** Brackish water **Other strain no.:** HSA

ADENOIDES : Dinophyceae

Adenoides eludens (Herdman) Balech

1367 **History:** < Murray, Shauna **Locality:** Suza/Ishikawa/Japan (2004-05-25) **Isolator:** Murray, Shauna **Identified by:** Murray, Shauna **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Sediment) **Characteristics:** Benthic **Reference:** 982 **Remarks:** Fragile species to transportation stresses

- 1402 History:** < TKB **Locality:** Wakayama/Japan (2003-04-19) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-063 (AK-05) **Remarks:** Fragile species to transportation stresses

AKASHIWO : Dinophyceae

Akashiwo sanguinea (Hirasaka) Hansen et Moestrup
Syn. *Gymnodinium sanguineum* Hirasaka

- 1832 History:** < TKB **Locality:** Mie/Japan (2005-04-**) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** TKB-263 **Remarks:** Fragile species to transportation stresses
- 1987 History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-08-01) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** MHW10 **Remarks:** Fragile species to transportation stresses

ALEXANDRIUM : Dinophyceae

Alexandrium catenella (Whedon et Kofoid) Balech
Syn. *Protogonyaulax catenalla* (Whedon et Kofoid) Taylor

- 675 History:** < KAGAWA < Yoshimatsu, Sadaaki **Locality:** Harima-nada/Japan (1980-06-17) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Axenic[2012 Mar] **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide; Mating type(-) **Other strain no.:** Ac 5 **Remarks:** Fragile species to transportation stresses
- 677 History:** < KAGAWA < Yoshimatsu, Sadaaki **Locality:** Yamakawa Bay/Kagoshima/Japan (1988-03-28) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** Acy-6 **Remarks:** Fragile species to transportation stresses

Alexandrium hiranoi Kita et Fukuyo

- 612 History:** < Kita, Takumi **Locality:** Kawasaki/Kanagawa/Japan (1984-08-**) **Isolator:** Kita, Takumi **Identified by:** Kita, Takumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Characteristics:** Toxic **References:** 394, 404, 405, 580 **Remarks:** Toxic; Fragile species to transportation stresses

Alexandrium insuetum Balech

- 678 History:** < KAGAWA < Yoshimatsu, Sadaaki **Locality:** Shodo Isl., Uchiimi Bay/Kagawa/Japan (1985-06-06) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Axenic[2012 Mar] **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Remarks:** Fragile species to transportation stresses

Alexandrium sp.

- 1988 History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-08-01) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** MHW6 **Remarks:** Fragile species to transportation stresses
- 1989 History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-08-01) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** MHW7 **Remarks:** Fragile species to transportation stresses
- 1991 History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-05-12) **Isolator:** Noël,

Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 15°C; 35-50µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW2 **Remarks:** Fragile species to transportation stresses

1993 History: < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-05-12) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 15°C; 35-50µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW4 **Remarks:** Fragile species to transportation stresses

2328 History: < Sawaguchi, Tomohiro **Locality:** Noumea/New Caledonia (1987-03-06) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** NCD-4 **Remarks:** Fragile species to transportation stresses

ALLAPSA : Sarcomonadea

Allapsa ocior Howe, Bass, Vickerman, Chao et Cavalier-Smith

2414 History: < Howe, Alexis T. **Locality:** U.K. (2007-**-**) **Isolator:** Howe, Alexis T. **Identified by:** Howe, Alexis T. (2007-**-**) **Culture conditions:** AF-6 + Wheat; 20°C; 0µmol/m²/s; 2-3 M **Habitat:** Terrestrial (Plant (Moss)) **Characteristics:** Heterotrophic; Authentic strain; Resting spore forming **Other strain no.:** 5A moss **Reference:** 225

Allapsa scotia Howe, Bass, Vickerman, Chao et Cavalier-Smith

2415 History: < Howe, Alexis T. **Locality:** U.K. (1999-**-**) **Isolator:** Vickerman, Keith **Identified by:** Vickerman, Keith (1999-**-**) **Culture conditions:** AF-6 + Wheat; 20°C; 0µmol/m²/s; 2-3 M **Habitat:** Terrestrial (Soil) **Characteristics:** Heterotrophic; Authentic strain; Resting spore forming **Other strain no.:** KV Hf **Reference:** 225

AMPHIDINIUM : Dinophyceae

Amphidinium carterae Hulbert

331 History: < Sawaguchi, Tomohiro **Locality:** Iriomote Isl./Okinawa/Japan (1986-01-23) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** ESM; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Gene data:** psbA (AB025586) **Other strain no.:** IIDA **References:** 143, 1035 **Remarks:** Unstable; Fragile species to transportation stresses

Amphidinium klebsii Coll

613 History: < Murata, Michio **Locality:** Aburatsubo Bay/Kanagawa/Japan (1993-04-21) **Isolator:** Murata, Michio **Identified by:** Fukuyo, Yasuo **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Gene data:** GapDH (AB106698); GapDH (AB106699) **Other strain no.:** AK-1 **References:** 222, 223, 224, 575, 576, 1032 **Remarks:** Fragile species to transportation stresses

Amphidinium operculatum Claparedé et Lachmann

1368 History: < Murray, Shauna **Locality:** Suzu/Ishikawa/Japan (2004-05-25) **Isolator:** Murray, Shauna **Identified by:** Murray, Shauna **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Sediment) **Characteristics:** Benthic **Remarks:** Fragile species to transportation stresses

Amphidinium sp.

2663 History: < Tsuda, Masashi **Locality:** Taketomi Isl./Okinawa/Japan (2009-06-04) **Isolator:** Kumagai, Keiko **Identified by:** Kumagai, Keiko (2010-05-26) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; ESM; 20°C; 10-15µmol/m²/s; 1 M **Habitat:** Marine (Sediment) **Characteristics:** Resting spore forming **Other strain no.:** KCA09051 **Remarks:** Fragile species to transportation stresses

2664 History: < Tsuda, Masashi **Locality:** Taketomi Isl./Okinawa/Japan (2009-06-04) **Isolator:** Kumagai, Keiko **Identified by:** Kumagai, Keiko (2010-05-26) **States:** Unialgal; Clonal;

Non-axenic Culture conditions: f/2; ESM; 20°C; 10-15µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Characteristics:** Resting spore forming **Other strain no.:** KCA09053 **Remarks:** Fragile species to transportation stresses

Amphidinium testudo Kofoid et Swezy

- 1268 History:** < Moriya, Mayumi **Locality:** Saipan/U.S.A. (2002-04-**) **Isolator:** Higa, Atsushi **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** M-44 **Remarks:** Fragile species to transportation stresses

ANABAENA : Cyanophyceae

Anabaena affinis Lemmermann

- 40 History:** < IAM (1983) **Other collection strain no.:** IAM M-168 **Locality:** Lake Kasumigaura/Ibaraki/Japan (1974-08-**) **Isolator:** Watanabe, Makoto M.; Ichimura, Terunobu **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 25°C; 70-90µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **References:** 235, 477, 567, 671, 1159, 1231 **Remarks:** Unstable

- 1639 History:** < TAC **Locality:** Lake Shirarutoro/Hokkaido/Japan (1990-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 439 **References:** 675, 1103

- 1640 History:** < TAC **Locality:** Lake Shirarutoro/Hokkaido/Japan (1990-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 440 **Reference:** 675

- 1641 History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1991-06-**) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 442 **Reference:** 675

- 1642 History:** < TAC **Locality:** Lake Tsukui/Kanagawa/Japan **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 454 **Reference:** 1103

Anabaena akankoensis M.Watanabe

- 1875 History:** < TAC **Locality:** Lake Akan/Hokkaido/Japan (2002-09-10) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; MG; 20°C; 13-18µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 505 **Reference:** 1103

- 1876 History:** < TAC **Locality:** Lake Akan/Hokkaido/Japan (2002-09-10) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; MG; 20°C; 13-18µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 506

- 1906 History:** < TAC **Locality:** Lake Akan/Hokkaido/Japan (2002-09-10) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 13-18µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 571

- 1907 History:** < TAC **Locality:** Lake Akan/Hokkaido/Japan (2002-09-10) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; MG; 20°C; 13-18µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 572

Anabaena aphanizomenoides Forti

1643 History: < TAC **Locality:** Tsukuba-shi, Chuo-koen/Ibaraki/Japan (1999-10-05) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 456 **Reference:** 1103

1644 History: < TAC **Locality:** Tsukuba-shi, Chuo-koen/Ibaraki/Japan (1999-10-12) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 457

Anabaena circinalis Rabenhorst ex Bornet et Flahault

41 History: < IAM (1983) **Other collection strain no.:** IAM M-169 **Locality:** Lake Kasumigaura/Ibaraki/Japan (1974-08-**) **Isolator:** Watanabe, Makoto M.; Ichimura, Terunobu **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic[2012 Nov] **Culture conditions:** CB; 25°C; 70-90µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Gene data:** 16S rRNA (AB042859) **References:** 192, 221, 235, 567, 670, 671, 796, 952, 997, 998, 1159 **Remarks:** Unstable

1645 History: < TAC **Locality:** Lake Inbanuma/Chiba/Japan (2001-09-25) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 482 **Reference:** 1182

1646 History: < TAC **Locality:** Lake Shiroyama/Kanagawa/Japan (2001-10-31) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 496 **Reference:** 1103

1647 History: < TAC **Locality:** Lake Shiroyama/Kanagawa/Japan (2001-10-31) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 497 **Reference:** 1182

1648 History: < TAC **Locality:** Lake Shiroyama/Kanagawa/Japan (2001-10-31) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 498

1649 History: < TAC **Locality:** Lake Shiroyama/Kanagawa/Japan (2001-10-31) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 499

1650 History: < TAC **Locality:** Lake Shiroyama/Kanagawa/Japan (2001-10-31) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 501 **Reference:** 1182

1877 History: < TAC **Locality:** Lake Shiroyama/Kanagawa/Japan (2001-10-31) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 502

1878 History: < TAC **Locality:** Lake Shiroyama/Kanagawa/Japan (2001-10-31) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 503 **Reference:** 1103

1879 History: < TAC **Locality:** Lake Inbanuma/Chiba/Japan (2002-09-23) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 508

1908 History: < TAC **Locality:** Hachirogata/Akita/Japan (2002-09-19) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 552

- 1909** **History:** < TAC **Locality:** Hachirogata/Akita/Japan (2002-09-19) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 553 **Reference:** 1103
- 1929** **History:** < TAC **Locality:** Rebun Isl., Lake Kushu/Hokkaido/Japan (2006-07-21) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko (2007-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 585 **Reference:** 1103
- 1930** **History:** < TAC **Locality:** Rebun Isl., Lake Kushu/Hokkaido/Japan (2006-07-21) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko (2007-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 586

*Anabaena circinalis** Rabenhorst ex Bornet et Flahault

- 1880** **History:** < TAC **Locality:** Lake Inbanuma/Chiba/Japan (2002-09-23) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 507 **Reference:** 1103

Anabaena compacta (Nygaard) Hickel

- 806** **History:** < Li, Renhui < CCAP **Other collection strain no.:** CCAP 1403/24 **Locality:** Rostherne Mere/Cheshire/U.K. **Isolator:** Jaworski, G. H. M. **Identified by:** Li, Renhui **Formerly identified as:** Anabaena spirooides Klebahn **States:** Unialgal; Clonal; Axenic[2012 Nov] **Culture conditions:** MG; 20°C; 12-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko)
- 835** **History:** < Li, Renhui < CCAP **Other collection strain no.:** CCAP 1403/29 **Locality:** Esthwaite Water/England, Cambria/U.K. **Isolator:** Butterwick **Identified by:** Li, Renhui **Formerly identified as:** Anabaena spirooides Klebahn **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 12-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Reference:** 203

Anabaena crassa (Lemmermann) Komárková-Legnerová et Cronberg

- 77** **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-08-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** Anabaena spirooides Klebahn f. spirooides **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 25°C; 70-90µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 31 (K-TAN-31) **References:** 360, 567, 1159 **Remarks:** Unstable
- 78** **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-07-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; 25°C; 70-90µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 30 (K-TAN-30) **References:** 221, 477, 567, 670, 671 **Remarks:** Unstable
- 1652** **History:** < TAC **Locality:** Lake Akan/Hokkaido/Japan (1990-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 436 **References:** 476, 675, 1103, 1141
- 1653** **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1991-07-**) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 443 **References:** 476, 675, 1103
- 1654** **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1991-07-**) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:**

TAC 444

- 1655 History:** < TAC **Locality:** Lake Inbanuma/Chiba/Japan (1996-08-10) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 468 **Reference:** 675
- 1656 History:** < TAC **Locality:** Nigo-ike Pond/Hyogo/Japan (2001-07-25) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 473 **Reference:** 1182
- 1657 History:** < TAC **Locality:** Nigo-ike Pond/Hyogo/Japan (2001-07-25) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 474 **Reference:** 1103
- 1658 History:** < TAC **Locality:** Lake Biwa, Akanoi/Shiga/Japan (2001-10-22) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 485 **Reference:** 1103
- 1659 History:** < TAC **Locality:** Lake Biwa, Akanoi/Shiga/Japan (2001-10-22) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 486 **Reference:** 1182
- 1660 History:** < TAC **Locality:** Lake Biwa, Hamaotsu/Shiga/Japan (2001-10-22) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 487
- 1661 History:** < TAC **Locality:** Lake Biwa, Hikone/Shiga/Japan (2001-10-22) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 488
- 1662 History:** < TAC **Locality:** Lake Yogo/Shiga/Japan (2001-10-22) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 490 **Reference:** 1182
- 1663 History:** < TAC **Locality:** Niigata/Japan (2001-10-22) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 492 **Reference:** 1182
- 1664 History:** < TAC **Locality:** Niigata/Japan (2001-10-22) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 493
- 1665 History:** < TAC **Locality:** Niigata/Japan (2001-10-22) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 494 **Reference:** 1103
- 1666 History:** < TAC **Locality:** Niigata/Japan (2001-10-22) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 495
- 1881 History:** < TAC **Locality:** Lake Yogo/Shiga/Japan (2002-10-14) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 512
- 1882 History:** < TAC **Locality:** Fujiidera/Osaka/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB;

- 20°C; 20-25µmol/m²/s; 1 M **Habitat**: Freshwater (Pond water) **Other strain no.**: TAC 518
- 1883 **History**: < TAC **Locality**: Fujiidera/Osaka/Japan (2002-10-04) **Isolator**: Niiyama, Yuko
Identified by: Niiyama, Yuko **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: CB;
20°C; 20-25µmol/m²/s; 1 M **Habitat**: Freshwater (Pond water) **Other strain no.**: TAC 519
- 1884 **History**: < TAC **Locality**: Lake Suwa/Nagano/Japan (2002-10-13) **Isolator**: Niiyama, Yuko
Identified by: Niiyama, Yuko **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: CB;
20°C; 20-25µmol/m²/s; 1 M **Habitat**: Freshwater (Lake water) **Other strain no.**: TAC 520
Reference: 1103
- 1885 **History**: < TAC **Locality**: Mannou/Kagawa/Japan (2002-10-02) **Isolator**: Niiyama, Yuko
Identified by: Niiyama, Yuko **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: CB;
20°C; 20-25µmol/m²/s; 1 M **Habitat**: Freshwater (Pond water) **Other strain no.**: TAC 522
- 1886 **History**: < TAC **Locality**: Lake Suwa/Nagano/Japan (2002-10-13) **Isolator**: Niiyama, Yuko
Identified by: Niiyama, Yuko **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: CB;
20°C; 20-25µmol/m²/s; 1 M **Habitat**: Freshwater (Lake water) **Other strain no.**: TAC 524
- 1887 **History**: < TAC **Locality**: Lake Suwa/Nagano/Japan (2002-10-13) **Isolator**: Niiyama, Yuko
Identified by: Niiyama, Yuko **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: CB;
20°C; 20-25µmol/m²/s; 1 M **Habitat**: Freshwater (Lake water) **Other strain no.**: TAC 525
Reference: 1103
- 1888 **History**: < TAC **Locality**: Lake Suwa/Nagano/Japan (2002-10-13) **Isolator**: Niiyama, Yuko
Identified by: Niiyama, Yuko **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: CB;
20°C; 20-25µmol/m²/s; 1 M **Habitat**: Freshwater (Lake water) **Other strain no.**: TAC 526
- 1889 **History**: < TAC **Locality**: Lake Suwa/Nagano/Japan (2002-10-13) **Isolator**: Niiyama, Yuko
Identified by: Niiyama, Yuko **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: CB;
20°C; 20-25µmol/m²/s; 1 M **Habitat**: Freshwater (Lake water) **Other strain no.**: TAC 527
- 1890 **History**: < TAC **Locality**: Lake Suwa/Nagano/Japan (2002-10-13) **Isolator**: Niiyama, Yuko
Identified by: Niiyama, Yuko **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: CB;
20°C; 20-25µmol/m²/s; 1 M **Habitat**: Freshwater (Lake water) **Other strain no.**: TAC 528
- 1891 **History**: < TAC **Locality**: Lake Biwa, Hamaotsu/Shiga/Japan (2002-10-04) **Isolator**: Niiyama,
Yuko **Identified by**: Niiyama, Yuko **States**: Unialgal; Clonal; Non-axenic **Culture conditions**:
CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat**: Freshwater (Lake water) **Other strain no.**: TAC 529
Reference: 1103
- 1892 **History**: < TAC **Locality**: Lake Biwa, Hamaotsu/Shiga/Japan (2002-10-04) **Isolator**: Niiyama,
Yuko **Identified by**: Niiyama, Yuko **States**: Unialgal; Clonal; Non-axenic **Culture conditions**:
CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat**: Freshwater (Lake water) **Other strain no.**: TAC 532
- 1910 **History**: < TAC **Locality**: Minakami-ike Pond/Nara/Japan (2003-05-22) **Isolator**: Niiyama, Yuko
Identified by: Niiyama, Yuko **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: CB;
20°C; 20-25µmol/m²/s; 1 M **Habitat**: Freshwater (Pond water) **Other strain no.**: TAC 562
- 1911 **History**: < TAC **Locality**: Minakami-ike Pond/Nara/Japan (2003-05-22) **Isolator**: Niiyama, Yuko
Identified by: Niiyama, Yuko **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: CB;
20°C; 20-25µmol/m²/s; 1 M **Habitat**: Freshwater (Pond water) **Other strain no.**: TAC 563
- 1912 **History**: < TAC **Locality**: Plöner See/Schleswich-Holstein/Germany **Isolator**: Niiyama, Yuko
Identified by: Niiyama, Yuko **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: CB;
20°C; 20-25µmol/m²/s; 1 M **Habitat**: Freshwater (Lake water) **Other strain no.**: TAC 567
- 1913 **History**: < TAC **Locality**: Plöner See/Schleswich-Holstein/Germany **Isolator**: Niiyama, Yuko
Identified by: Niiyama, Yuko **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: CB;
20°C; 20-25µmol/m²/s; 1 M **Habitat**: Freshwater (Lake water) **Other strain no.**: TAC 573
- 1914 **History**: < TAC **Locality**: Plöner See/Schleswich-Holstein/Germany **Isolator**: Niiyama, Yuko
Identified by: Niiyama, Yuko **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: CB;
20°C; 20-25µmol/m²/s; 1 M **Habitat**: Freshwater (Lake water) **Other strain no.**: TAC 574

- 1915 History:** < TAC **Locality:** Plöner See/Schleswich-Holstein/Germany **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 575
- 1916 History:** < TAC **Locality:** Plöner See/Schleswich-Holstein/Germany **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 576
- 1917 History:** < TAC **Locality:** Plöner See/Schleswich-Holstein/Germany **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 577
- 1918 History:** < TAC **Locality:** Lake Toro/Hokkaido/Japan (2002-06-25) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 587
- 1919 History:** < TAC **Locality:** Lake Toro/Hokkaido/Japan (2002-06-25) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 588

*Anabaena crassa** (Lemmermann) Komárková-Legnerová et Cronberg

- 1893 History:** < TAC **Locality:** Lake Yogo/Shiga/Japan (2002-10-14) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 513
- 1894 History:** < TAC **Locality:** Lake Inbanuma/Chiba/Japan (2002-09-23) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 514 **Reference:** 1103
- 1895 History:** < TAC **Locality:** Fujiidera/Osaka/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 515 **Reference:** 1103
- 1896 History:** < TAC **Locality:** Fujiidera/Osaka/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 516
- 1897 History:** < TAC **Locality:** Fujiidera/Osaka/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 517
- 1898 History:** < TAC **Locality:** Lake Suwa/Nagano/Japan (2002-10-13) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 521
- 1899 History:** < TAC **Locality:** Lake Suwa/Nagano/Japan (2002-10-13) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 523
- 1900 History:** < TAC **Locality:** Lake Biwa, Hamaotsu/Shiga/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; MG; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 530
- 1901 History:** < TAC **Locality:** Lake Biwa, Hamaotsu/Shiga/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:**

CB; 20°C; 20-25 μ mol/m²/s; 1 M **Habitat**: Freshwater (Lake water) **Characteristics**: *Akinete not observed **Other strain no.**: TAC 531

- 1902 History:** < TAC **Locality**: Lake Biwa, Hamaotsu/Shiga/Japan (2002-10-04) **Isolator**: Niiyama, Yuko **Identified by**: Niiyama, Yuko **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: CB; 20°C; 20-25 μ mol/m²/s; 1 M **Habitat**: Freshwater (Lake water) **Characteristics**: *Akinete not observed **Other strain no.**: TAC 533

Anabaena cylindrica Lemmermann

- 19 History:** < IAM (1983) **Other collection strain no.**: IAM M-1 (=M-253) **States**: Unialgal; Non-clonal; Axenic[2013 Jan] **Culture conditions**: MDM (agar); 20°C; 4-10 μ mol/m²/s; 4 M (25°C; 70-80 μ mol/m²/s) **Characteristics**: Nitrogen fixation **Gene data**: 16S rRNA (AF247592); gyrB (AB074770); rpoC1 (AB074793); rpoD1 (AB074820) **References**: 19, 20, 43, 101, 102, 105, 106, 107, 108, 109, 110, 111, 112, 113, 130, 141, 185, 204, 205, 235, 291, 422, 423, 467, 535, 567, 589, 669, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 782, 783, 784, 785, 786, 787, 788, 844, 845, 846, 869, 937, 1002, 1004, 1089, 1125, 1132, 1159, 1189, 1225, 1226, 1227, 1228, 1229, 1231

Anabaena danica (Nygaard) Komárková et Eloranta

- 1667 History:** < TAC **Locality**: Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator**: Watanabe, Masayuki **Identified by**: Watanabe, Masayuki **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: CB; 20°C; 22-32 μ mol/m²/s; 1 M **Habitat**: Freshwater (Lake water) **Other strain no.**: TAC 453 **References**: 476, 1103

Anabaena flos-aquae Brébisson ex Bornet et Flahault

Syn. *Anabaena flos-aquae* Brébisson ex Bornet et Flahault f. *flos-aquae*

- 73 History:** < TAC **Locality**: Lake Kasumigaura/Ibaraki/Japan (1978-08-**) **Isolator**: Watanabe, Masayuki **Identified by**: Watanabe, Masayuki **States**: Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions**: MA; 25°C; 70-90 μ mol/m²/s; 1 M **Habitat**: Freshwater (Lake water) **Characteristics**: Cyanobacterial water bloom (aoko) **Gene data**: 16S rRNA (AB042858) **Other strain no.**: TAC 32 (K-TAN-32) **References**: 151, 221, 360, 567, 671, 796, 840, 841, 842, 973, 1159, 1272 **Remarks**: Unstable

- 75 History:** < TAC **Locality**: Lake Kasumigaura/Ibaraki/Japan (1978-12-**) **Isolator**: Watanabe, Masayuki **Identified by**: Watanabe, Masayuki **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: CB; 25°C; 70-90 μ mol/m²/s; 1 M **Habitat**: Freshwater (Lake water) **Characteristics**: Cyanobacterial water bloom (aoko) **Other strain no.**: TAC 43 (K-TAN-43) **References**: 567, 621, 1159 **Remarks**: Unstable

- 1668 History:** < TAC **Locality**: Lake Suwa/Nagano/Japan (1984-09-13) **Isolator**: Watanabe, Masayuki **Identified by**: Watanabe, Masayuki **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: MA; 20°C; 22-32 μ mol/m²/s; 1 M **Habitat**: Freshwater (Lake water) **Characteristics**: Cyanobacterial water bloom (aoko) **Other strain no.**: TAC 99 **References**: 749, 1103

- 1669 History:** < TAC **Locality**: Lake Suwa/Nagano/Japan (1984-09-13) **Isolator**: Watanabe, Masayuki **Identified by**: Watanabe, Masayuki **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: MA; 20°C; 22-32 μ mol/m²/s; 1 M **Habitat**: Freshwater (Lake water) **Characteristics**: Cyanobacterial water bloom (aoko); Toxic **Other strain no.**: TAC 100 **Remarks**: Toxic

- 1670 History:** < TAC **Locality**: Hirosaki Castle/Aomori/Japan (1990-06-**) **Isolator**: Niiyama, Yuko **Identified by**: Niiyama, Yuko **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: CB; 20°C; 22-32 μ mol/m²/s; 1 M **Habitat**: Freshwater (Moat water) **Other strain no.**: TAC 430 **Reference**: 675

- 1671 History:** < TAC **Locality**: Lake Kasumigaura/Ibaraki/Japan (1991-06-**) **Isolator**: Niiyama, Yuko **Identified by**: Niiyama, Yuko **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: CB; 20°C; 22-32 μ mol/m²/s; 1 M **Habitat**: Freshwater (Lake water) **Other strain no.**: TAC 445 **Reference**: 675

- 1672 History:** < TAC **Locality**: Lake Kasumigaura/Ibaraki/Japan (1991-06-**) **Isolator**: Niiyama, Yuko **Identified by**: Niiyama, Yuko **States**: Unialgal; Clonal; Non-axenic **Culture conditions**:

CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat**: Freshwater (Lake water) **Other strain no.**: TAC 446
References: 476, 675, 1103

- 1903 History**: < TAC **Locality**: Hirosaki Castle/Aomori/Japan (1990-06-**) **Isolator**: Niiyama, Yuko
Identified by: Niiyama, Yuko **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat**: Freshwater (Moat water) **Other strain no.**: TAC 429

*Anabaena heterospora** Nygaard

- 1697 History**: < TAC **Locality**: Watarase-yuusuichi/Tochigi/Japan (1991-06-16) **Isolator**: Iikura **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat**: Freshwater (Water) **Characteristics**: *Akinete not observed **Other strain no.**: TAC 447
Reference: 1103

Anabaena kisseleviana Elenkin

- 74 History**: < TAC **Locality**: Lake Kasumigaura/Ibaraki/Japan (1978-08-**) **Isolator**: Watanabe, Masayuki **Identified by**: Watanabe, Masayuki **Formerly identified as**: Anabaena flos-aquae Brébisson ex Bornet et Flahault f. flos-aquae **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: CT; 25°C; 70-90µmol/m²/s; 1 M **Habitat**: Freshwater (Lake water) **Characteristics**: Cyanobacterial water bloom (aoko) **Other strain no.**: TAC 33 (K-TAN-33) **References**: 50, 323, 567, 585, 586, 587, 840, 841, 842, 1159 **Remarks**: Unstable

- 807 History**: < Li, Renhui < TAC **Locality**: Lake Kasumigaura/Ibaraki/Japan (1978-08-**) **Isolator**: Watanabe, Masayuki **Identified by**: Li, Renhui **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: MG; 20°C; 12-22µmol/m²/s; 2 M **Habitat**: Freshwater (Lake water) **Characteristics**: Cyanobacterial water bloom (aoko) **Other strain no.**: TAC 34 **Reference**: 1103

Anabaena lemmermannii Richter

- 808 History**: < Li, Renhui < TAC **Locality**: Lake Akan/Hokkaido/Japan (1990-08-**) **Isolator**: Niiyama, Yuko **Identified by**: Li, Renhui; Niiyama, Yuko (Reidentify) **Formerly identified as**: Anabaena mendotae Trelease **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: MG; 20°C; 12-22µmol/m²/s; 2 M **Habitat**: Freshwater (Lake water) **Characteristics**: Cyanobacterial water bloom (aoko) **Other strain no.**: TAC 437 (A28) **References**: 151, 675, 1103

- 833 History**: < Li, Renhui < NIVA **Other collection strain no.**: NIVA CYA 82 **Locality**: Buskerud, Lake Steinsfjorden/Norway **Identified by**: Li, Renhui **Formerly identified as**: Anabaena circinalis Rabenhorst ex Bornet et Flahault **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: CT; MG; 20°C; 12-22µmol/m²/s; 2 M **Habitat**: Freshwater (Lake water) **Characteristics**: Cyanobacterial water bloom (aoko) **Remarks**: Unstable

- 1673 History**: < TAC **Locality**: Lake Akan/Hokkaido/Japan (1990-08-**) **Isolator**: Niiyama, Yuko **Identified by**: Niiyama, Yuko **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat**: Freshwater (Lake water) **Other strain no.**: TAC 438 **References**: 476, 675, 1103

- 1674 History**: < TAC **Locality**: Nigo-ike Pond/Hyogo/Japan (2001-07-25) **Isolator**: Niiyama, Yuko **Identified by**: Niiyama, Yuko **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat**: Freshwater (Pond water) **Other strain no.**: TAC 475 **Reference**: 1103

- 1675 History**: < TAC **Locality**: Nigo-ike Pond/Hyogo/Japan (2001-07-25) **Isolator**: Niiyama, Yuko **Identified by**: Niiyama, Yuko **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat**: Freshwater (Pond water) **Other strain no.**: TAC 476

- 1676 History**: < TAC **Locality**: Lake Teganuma/Chiba/Japan (2001-09-26) **Isolator**: Niiyama, Yuko **Identified by**: Niiyama, Yuko **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat**: Freshwater (Lake water) **Other strain no.**: TAC 483

- 1920 History**: < TAC **Locality**: Rebun Isl., Lake Kushu/Hokkaido/Japan (2006-07-21) **Isolator**: Niiyama, Yuko **Identified by**: Niiyama, Yuko **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat**: Freshwater (Lake water) **Other strain no.**: TAC 583 **Reference**: 1103

- 1921 **History:** < TAC **Locality:** Rebun Isl., Lake Kushu/Hokkaido/Japan (2006-07-21) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 584 **Reference:** 1103

Anabaena minispora M.Watanabe

- 1922 **History:** < TAC **Locality:** Lake Mikata/Fukui/Japan (2003-05-15) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 554 **Reference:** 1103

- 1923 **History:** < TAC **Locality:** Lake Mikata/Fukui/Japan (2003-05-15) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 555

- 1924 **History:** < TAC **Locality:** Lake Mikata/Fukui/Japan (2003-05-15) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 556

Anabaena mucosa Komárkova-Legnerová et Eloranta

- 809 **History:** < Li, Renhui < TAC **Locality:** Lake Toro/Hokkaido/Japan (1990-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 12-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 426 (A10) **Reference:** 675 **Remarks:** Unstable

- 1677 **History:** < TAC **Locality:** Lake Toro/Hokkaido/Japan (1990-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 425 **References:** 476, 675, 1103, 1182

*Anabaena mucosa** Komárkova-Legnerová et Eloranta

- 1925 **History:** < TAC **Locality:** Lake Toro/Hokkaido/Japan (2002-10-01) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 534

- 1926 **History:** < TAC **Locality:** Lake Toro/Hokkaido/Japan (2002-10-01) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 535

- 1927 **History:** < TAC **Locality:** Lake Toro/Hokkaido/Japan (2002-10-01) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 536

- 1928 **History:** < TAC **Locality:** Lake Toro/Hokkaido/Japan (2002-10-01) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 537

Anabaena oumiana M.Watanabe

- 1678 **History:** < TAC **Locality:** Lake Inbanuma/Chiba/Japan (1996-08-10) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 464 **Reference:** 1103

- 1679 **History:** < TAC **Locality:** Lake Inbanuma/Chiba/Japan (1996-08-10) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:**

TAC 466 Reference: 1182

- 1904 **History:** < TAC **Locality:** Funada-ike Pond/Chiba/Japan (2002-08-28) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 509 **Reference:** 1103
- 1931 **History:** < TAC **Locality:** near Koyama-ike Pond/Tottori/Japan **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 568 **Reference:** 1103
- 1932 **History:** < TAC **Locality:** near Koyama-ike Pond/Tottori/Japan **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 569
- 1933 **History:** < TAC **Locality:** near Koyama-ike Pond/Tottori/Japan **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 570

Anabaena plantonica Brunnthaler

- 80 **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-12-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** Anabaena solitaria Klebahn f. solitaria **States:** Unialgal; Clonal; Axenic[2011 Sept] **Culture conditions:** CB; 25°C; 70-90µmol/m²/s; 20 D **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 42 (K-TAN-42) **References:** 221, 477, 567, 671, 1159 **Remarks:** Unstable
- 810 **History:** < Li, Renhui < TAC **Locality:** Lake Ohnuma/Hokkaido/Japan (1990-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Axenic **Culture conditions:** MG; 20°C; 12-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 421 (A3) **References:** 203, 477, 675
- 811 **History:** < Li, Renhui < TAC **Locality:** Lake Ohnuma/Hokkaido/Japan (1990-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Axenic **Culture conditions:** MG; 20°C; 12-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 422 (A4) **Reference:** 675
- 812 **History:** < Li, Renhui < TAC **Locality:** Lake Toro/Hokkaido/Japan (1990-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 12-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 424 (A7) **Reference:** 675
- 813 **History:** < Li, Renhui < TAC **Locality:** Lake Tofutsu/Hokkaido/Japan (1990-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Li, Renhui **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 12-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 434 (A25) **Reference:** 675
- 814 **History:** < Li, Renhui < TAC **Locality:** Lake Tofutsu/Hokkaido/Japan (1990-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Li, Renhui **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; 20°C; 12-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 435 (A26) **Reference:** 675
- 815 **History:** < Li, Renhui < CCAP **Other collection strain no.:** CCAP 1403/19 **Locality:** Esthwaite Water/England, Cambria/U.K. **Isolator:** Jaworski, G. H. M. **Identified by:** Li, Renhui **Formerly identified as:** Anabaena solitaria Klebahn **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; 20°C; 12-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko)
- 816 **History:** < Li, Renhui < CCAP **Other collection strain no.:** CCAP 1403/27 **Locality:** Bleetham Tarn/England, Cambria/U.K. **Isolator:** Jaworski, G. H. M. **Identified by:** Li, Renhui **Formerly identified as:** Anabaena solitaria Klebahn **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; 20°C; 12-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:**

- Cyanobacterial water bloom (aoko)
- 817 **History:** < Li, Renhui **Locality:** Lake Inbanuma/Chiba/Japan (1995-05-**) **Isolator:** Li, Renhui **Identified by:** Li, Renhui **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 12-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Offensive taste and odor **Other strain no.:** Inba 2
- 834 **History:** < Li, Renhui < NIVA **Other collection strain no.:** NIVA CYA 66 **Locality:** Aust-Agder, Lake Langsævatn/Norway (1979-**-**) **Identified by:** Li, Renhui **Formerly identified as:** Anabaena solitaria Klebahn f. planktonica (Brunnthaler) Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 12-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko)
- 1680 **History:** < TAC **Locality:** Lake Toro/Hokkaido/Japan (1990-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 423 **Reference:** 675
- 1681 **History:** < TAC **Locality:** Lake Inbanuma/Chiba/Japan (1996-08-10) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 465
- 1682 **History:** < TAC **Locality:** Nigo-ike Pond/Hyogo/Japan (2001-07-25) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 471
- 1683 **History:** < TAC **Locality:** Nigo-ike Pond/Hyogo/Japan (2001-07-25) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 472 **Reference:** 1103
- 1723 **History:** < Li, Renhui **Locality:** Lake Yamanaka/Yamanashi/Japan (1998-07-**) **Isolator:** Li, Renhui **Identified by:** Li, Renhui (1998-07-**) **States:** Unialgal **Culture conditions:** CB; CT; 20°C; 12-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Offensive odor; Resting spore forming **Other strain no.:** yama-2
- 1934 **History:** < TAC **Locality:** Lake Shinotsu/Hokkaido/Japan (2003-07-29) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 561 **Reference:** 1103

Anabaena pseudocompacta M.Watanabe

- 79 **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-07-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** Anabaena spiroides Klebahn f. spiroides **States:** Unialgal; Clonal; Axenic **Culture conditions:** CB; 25 °C ; 70-90µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 28 (K-TAN-28) **References:** 221, 477, 567 **Remarks:** Unstable
- 1684 **History:** < TAC **Locality:** Nigo-ike Pond/Hyogo/Japan (2001-07-25) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 477 **Reference:** 1182
- 1935 **History:** < TAC **Locality:** Hachirogata/Akita/Japan (2002-07-30) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Ditch water) **Other strain no.:** TAC 539
- 1936 **History:** < TAC **Locality:** Hachirogata/Akita/Japan (2002-07-30) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Ditch water) **Other strain no.:** TAC 541

1937 History: < TAC **Locality:** Lake Shirarutoro/Hokkaido/Japan (2004-08-01) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 589

1938 History: < TAC **Locality:** Lake Shirarutoro/Hokkaido/Japan (2004-08-01) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 590

*Anabaena pseudocompacta** M.Watanabe

1939 History: < TAC **Locality:** Hachirogata/Akita/Japan (2002-07-30) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Ditch water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 538 **Reference:** 1103

1940 History: < TAC **Locality:** Hachirogata/Akita/Japan (2002-07-30) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Ditch water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 540

Anabaena reniformis Lemmermann emend. Aptekarji

1685 History: < TAC **Locality:** Tsukuba-shi, Chuo-koen/Ibaraki/Japan (1999-10-05) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 458

1686 History: < TAC **Locality:** Tsukuba-shi, Chuo-koen/Ibaraki/Japan (1999-09-30) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 459

1687 History: < TAC **Locality:** Shikata-futago-ike Pond/Hyogo/Japan (1990-09-17) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 460

1688 History: < TAC **Locality:** Koya-ike Pond/Hyogo/Japan (1996-07-26) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 461

1689 History: < TAC **Locality:** Koya-ike Pond/Hyogo/Japan (1996-07-26) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 462

1690 History: < TAC **Locality:** Shin-ike Pond/Hyogo/Japan (2001-07-25) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 478 **References:** 1103, 1182

1691 History: < TAC **Locality:** Shin-ike Pond/Hyogo/Japan (2001-07-25) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 479

1692 History: < TAC **Locality:** Shin-ike Pond/Hyogo/Japan (2001-07-25) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 480

1693 History: < TAC **Locality:** Tatsugaya-ike Pond/Hyogo/Japan (2001-07-25) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 481 **References:** 1103, 1182

1694 History: < TAC **Locality:** Lake Teganuma/Chiba/Japan (2001-09-26) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 484

Reference: 1103

- 1941 History:** < TAC **Locality:** Fujiidera/Osaka/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 542
- 1942 History:** < TAC **Locality:** Fujiidera/Osaka/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 543 **Reference:** 1103
- 1943 History:** < TAC **Locality:** Fujiidera/Osaka/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 544
- 1944 History:** < TAC **Locality:** Fujiidera/Osaka/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 545
- 1945 History:** < TAC **Locality:** Fujiidera/Osaka/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 546
- 1946 History:** < TAC **Locality:** Fujiidera/Osaka/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 547
- 1947 History:** < TAC **Locality:** Fujiidera/Osaka/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 4-6µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 548
- 1948 History:** < TAC **Locality:** Fujiidera/Osaka/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 4-6µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 549
- 1949 History:** < TAC **Locality:** Fujiidera/Osaka/Japan (2002-10-04) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 4-6µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 550

Anabaena smithii (Komárek) M.Watanabe

- 818 History:** < Li, Renhui < TAC **Locality:** Lake Barato/Hokkaido/Japan (1989-08-**) **Isolator:** Watanabe, Masayuki **Identified by:** Li, Renhui **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 12-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 116
- 819 History:** < Li, Renhui < TAC **Locality:** Lake Barato/Hokkaido/Japan (1990-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 12-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 428 (A14) **References:** 203, 675
- 820 History:** < Li, Renhui < TAC **Locality:** Hirosaki/Aomori/Japan (1990-06-**) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 12-22µmol/m²/s; 2 M **Habitat:** (Freshwater) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 431 (A18) **References:** 675, 1103
- 821 History:** < Li, Renhui < TAC **Locality:** Hirosaki/Aomori/Japan (1990-06-**) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 12-22µmol/m²/s; 2 M **Habitat:** (Freshwater) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 432 (A19) **References:** 477, 675
- 822 History:** < Li, Renhui < TAC **Locality:** Lake Akan/Hokkaido/Japan (1991-07-**) **Isolator:** Niiyama, Yuko **Identified by:** Li, Renhui **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 12-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 450 (A51) **References:** 675, 1103

- 823 **History:** < Li, Renhui < TAC **Locality:** Lake Okutama/Tokyo/Japan (1991-07-**) **Isolator:** Watanabe, Masayuki **Identified by:** Li, Renhui **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 12-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Offensive taste and odor **Other strain no.:** TAC 452 (210) **Remarks:** Unstable
- 824 **History:** < Li, Renhui **Locality:** Hasse River/Tokyo/Japan (1998-03-**) **Isolator:** Li, Renhui **Identified by:** Li, Renhui **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 12-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Offensive taste and odor **Other strain no.:** Ana Ha 1
- 1695 **History:** < TAC **Locality:** Lake Akan/Hokkaido/Japan (1990-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 451 **References:** 476, 675, 1182
- 1724 **History:** < Li, Renhui **Locality:** Lake Yamanaka/Yamanashi/Japan (1998-07-**) **Isolator:** Li, Renhui **Identified by:** Li, Renhui (1998-07-**) **States:** Unialgal **Culture conditions:** MG; 20°C; 12-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Nitrogen fixation; Resting spore forming **Other strain no.:** yama-1

Anabaena sp.

- 1651 **History:** < TAC **Locality:** Lake Shiroyama/Kanagawa/Japan (2001-10-31) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 500 **Reference:** 1103
- 1953 **History:** < TAC **Locality:** Lake Mikata/Fukui/Japan (2003-05-15) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 4-6µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 564
- 1954 **History:** < TAC **Locality:** Lake Mikata/Fukui/Japan (2003-05-15) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 4-6µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 565
- 1955 **History:** < TAC **Locality:** Lake Mikata/Fukui/Japan (2003-05-15) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 4-6µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 566

Anabaena spiroides Klebahn

- 76 **History:** < Suda, Shoichiro **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-06-16) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 25°C; 70-90µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Gene data:** 16S rRNA (AB047104) **Other strain no.:** K-A-12 **References:** 477, 567, 671, 796, 797, 1159 **Remarks:** Unstable
- 1905 **History:** < TAC **Locality:** Soe-ike Pond/Hyogo/Japan (2001-11-03) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 20-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 504
- 1950 **History:** < TAC **Locality:** Mishima-ike Pond/Shiga/Japan (2001-10-22) **Isolator:** Tsujimura, Shigeo **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 4-6µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TAC 551 **Reference:** 1103

Anabaena ucrainica (Schkorbatow) M.Watanabe

- 263 **History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-07-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** Anabaena spiroides Klebahn f. spiroides **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; 25 °C ; 70-90µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 27 (K-TAN-27) **References:** 567, 1159 **Remarks:** Unstable

- 825 **History:** < Li, Renhui < TAC **Locality:** Lake Sagami/Kanagawa/Japan (1991-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 12-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 448 (A48) **References:** 477, 675
- 826 **History:** < Li, Renhui < TAC **Locality:** Lake Sagami/Kanagawa/Japan (1991-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 12-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 449 (A50) **References:** 203, 477, 675, 1103
- 1696 **History:** < TAC **Locality:** Lake Tsukui/Kanagawa/Japan **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 455 **References:** 1103, 1182

Anabaena variabilis Kützing ex Bornet et Flahault

- 23 **History:** < IAM (1983) **Other collection strain no.:** IAM M-2 **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** MDM (agar); 20°C; 4-10µmol/m²/s; 4 M (25°C; 70-80µmol/m²/s) **References:** 20, 73, 94, 95, 96, 110, 111, 112, 204, 235, 567, 600, 601, 602, 865, 1002, 1090, 1125
- 2093 **History:** < IAM (2007) < Meyers, Jack **Other collection strain no.:** IAM M-3 **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** MDM (agar); 20°C; 13-18µmol/m²/s; 3 M **Habitat:** Freshwater **Characteristics:** Mostly fragmented **Gene data:** 16S rRNA (AB016520); gyrB (AB074772); rpoC1 (AB074795); rpoD1 (AB074822) **References:** 2, 3, 4, 5, 205, 286, 287, 361, 372, 455, 456, 523, 535, 553, 559, 561, 590, 591, 813, 895, 896, 897, 898, 899, 900, 901, 937, 1004, 1097, 1100, 1117, 1197
- 2094 **History:** < IAM (2007) < Ishikawa, Masako **Other collection strain no.:** IAM M-58 **Isolator:** Ishikawa, Masako **Identified by:** Maruyama, Ko **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** MDM (agar); 20°C; 13-18µmol/m²/s; 3 M **Habitat:** Freshwater **Other strain no.:** Ishikawa 99.J403w. **Reference:** 1004
- 2095 **History:** < IAM (2007) < Fujiwara, Shoko (1990) **Other collection strain no.:** IAM M-204; ATCC 29413 **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** MDM (agar); 20°C; 13-18µmol/m²/s; 3 M **Habitat:** Freshwater **Gene data:** 16S rRNA (AB074502); gyrB (AB074766); rpoC1 (AB074789); rpoD1 (AB074816) **References:** 486, 937, 965, 1016

Anabaena viguieri Denis et Fremy

- 827 **History:** < Li, Renhui < TAC **Locality:** Shikata-futago-ike Pond/Hyogo/Japan (1990-09-**) **Isolator:** Niiyama, Yuko **Identified by:** Li, Renhui **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 12-22µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 433 (A23) **Reference:** 675
- Anabaena viguieri** Denis et Fremy
- 1951 **History:** < TAC **Locality:** Lake Mikata/Fukui/Japan (2003-05-15) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 4-6µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 559
- 1952 **History:** < TAC **Locality:** Lake Mikata/Fukui/Japan (2003-05-15) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 4-6µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** *Akinete not observed **Other strain no.:** TAC 560

ANABAENOPSIS : Cyanophyceae

Anabaenopsis circularis (G.S. West) Woloszynska et Miller

- 21 **History:** < IAM (1983) **Other collection strain no.:** IAM M-4 **Isolator:** Watanabe, Atsushi

Identified by: Hirano **States:** Unialgal; Clonal; Axenic **Culture conditions:** MDM (agar); 20°C; 4-10 μ mol/m²/s; 4 M (25°C; 70-80 μ mol/m²/s) **Gene data:** 16S rRNA (AB043537); 16S rRNA (AF247595); cpcB, cpcA (JF740674); gyrB (AB074773); rpoC1 (AB074796); rpoD1 (AB074823) **References:** 20, 235, 567, 589, 796, 937, 1125, 1131, 1159 **Remarks:** Cryopreserved

Anabaenopsis sp.

- 1698 History:** < TAC **Locality:** Lake Barato/Hokkaido/Japan (1990-08-**) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 22-32 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 427
- 1725 History:** < Li, Renhui **Locality:** Shinobazu-no-ike Pond, Ueno Park/Tokyo/Japan (1998-10-**) **Isolator:** Li, Renhui **Identified by:** Li, Renhui (1998-10-**) **States:** Unialgal **Culture conditions:** CT; 20 °C ; 12-22 μ mol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Resting spore forming **Other strain no.:** Anabaenopsis (Ueno)

ANACYSTIS : Cyanophyceae

Anacystis marina (Hansgirg) Drouet et Dailey

- 2096 History:** < IAM (2007) < Safferman, R. S. **Other collection strain no.:** IAM M-122 **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 13-18 μ mol/m²/s; 3 M **Habitat:** Freshwater **Other strain no.:** SEC 142

ANKISTRODESMUS : Chlorophyceae

Ankistrodesmus angustus Bernard

- 2190 History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-302; SAG 202-3; UTEX 188 **Isolator:** Rodhe, W. **Formerly identified as:** Ankistrodesmus falcatus (Corda) Ralfs **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Pro (agar); 20°C; 8-15 μ mol/m²/s; 3 M **Habitat:** Freshwater **References:** 38, 513
- 2191 History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-303; UTEX 241; (BIU 241); CCAP 202/4A; SAG 202-4 **Locality:** Czechoslovakia **Isolator:** Czurda, V. **Formerly identified as:** Ankistrodesmus falcatus (Corda) Ralfs var. mirabilis W. et G.S. West **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15 μ mol/m²/s; 3 M **Habitat:** Freshwater
- 2192 History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-548 (=C-91); CCAP 202/2; UTEX 189; SAG 202-2; ATCC 30448 **Locality:** Switzerland **Isolator:** Vischer, W. **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15 μ mol/m²/s; 3 M **Other strain no.:** Vischer 9

Ankistrodesmus braunii (Nägeli) Brunnthaler

- 2193 History:** < IAM (2007) < BIU (UTEX) **Other collection strain no.:** IAM C-90; UTEX 187; CCAP 202/9; SAG 202-9; ATCC 30447; (BIU 187) **Isolator:** George, E. A. **Formerly identified as:** Ankistrodesmus falcatus (Corda) Ralfs var. duplex (Kützing) G.S. West **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15 μ mol/m²/s; 3 M **Habitat:** Freshwater
- 2194 History:** < IAM (2007) < BIU (UTEX; 1961) **Other collection strain no.:** IAM C-96; CCAP 202/7B; UTEX 245; SAG-7b **Locality:** South Africa **Isolator:** George, E. A. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15 μ mol/m²/s; 3 M **Habitat:** Freshwater **References:** 38, 513

Ankistrodesmus falcatus (Corda) Ralfs var. *acicularis* (A. Braun) G.S. West

- 2195 History:** < IAM (2007) < BIU (UTEX; 1961) **Other collection strain no.:** IAM C-88; UTEX 101; CCAP 202/11D(?) **Locality:** Indiana/U.S.A. **Isolator:** Starr, R. C. **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15 μ mol/m²/s; 3 M **Habitat:** Freshwater **Reference:** 513

Ankistrodesmus falcatus (Corda) Ralfs var. *stipitatus* (Chodat) Lemmermann

- 2196 History:** < IAM (2007) < BIU (UTEX) **Other collection strain no.:** IAM C-304; CCAP 202/5A; UTEX 242; SAG 202-5; Prague 262 **Locality:** Czechoslovakia **Isolator:** Czurda, V. **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat:** Freshwater

Ankistrodesmus nannoseleene Skuja

- 2197 History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-305; CCAP 202/6A; SAG 202-6; UTEX 243 **Locality:** Siggeforsajon/Sweden **Isolator:** Rodhe, W. **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Other strain no.:** Rodhe 1632

APHANIZOMENON : Cyanophyceae*Aphanizomenon flos-aquae* (L.) Ralfs ex Bornet et Flahault

- 1258 History:** < Sano, Tomoharu **Locality:** Lake Suigetsu/Fukui/Japan (2000-12-05) **Isolator:** Sano, Tomoharu **Identified by:** Otsuka, Shigeto **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20 °C ; 70-90µmol/m²/s; 1 M **Habitat:** Brackish water (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** SUI-CT-1

- 1726 History:** < Li, Renhui **Locality:** U.K. (1997-08-**) **Identified by:** Li, Renhui (1997-08-**) **States:** Unialgal **Culture conditions:** MG; 20°C; 12-22µmol/m²/s; 2 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko); Nitrogen fixation; Motile; Resting spore forming **Other strain no.:** Aph E

- 1727 History:** < Li, Renhui **Locality:** Germany (1997-07-**) **Isolator:** Li, Renhui **Identified by:** Li, Renhui (1997-07-**) **States:** Unialgal **Culture conditions:** MG; 20°C; 12-22µmol/m²/s; 2 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** Aph Gmü

- 1728 History:** < Li, Renhui **Locality:** Lake Inbanuma/Chiba/Japan (1997-05-**) **Isolator:** Li, Renhui **Identified by:** Li, Renhui (1997-05-**) **States:** Unialgal **Culture conditions:** MG; 20°C ; 12-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Nitrogen fixation; Resting spore forming **Gene data:** 16S rRNA (AY196083) **Other strain no.:** Aph Inba **Reference:** 475

Aphanizomenon flos-aquae (L.) Ralfs ex Bornet et Flahault f. *gracile* (Lemmermann) Elenkin

- 81 History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-01-24) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** CB; 25°C; 70-90µmol/m²/s; 20 D **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 1 (K-TAN-1) **References:** 192, 221, 477, 567, 584, 669, 671, 973, 1159, 1219, 1272 **Remarks:** Unstable

APHANOCAPSA : Cyanophyceae*Aphanocapsa montana* Cramer

- 416 History:** < Watanabe, Makoto M. **Locality:** Toyamasawa/Tochigi/Japan (1987-04-30) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSi; CSi + Cu; 20°C; 4-10µmol/m²/s; 4 M (20°C; 15-27µmol/m²/s) **Habitat:** Freshwater (River water) **Other strain no.:** NK-24 **References:** 139, 567, 1018 **Remarks:** Cryopreserved

APIOCYSTIS : Chlorophyceae*Apio cystis brauniana* Nägeli

- 1020 History:** < Moriya, Mayumi **Locality:** Shishizuka-ohike Pond/Ibaraki/Japan (2002-02-**) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water)

Characteristics: Epiphytic **Other strain no.:** #115

ARTHROSPIRA : Cyanophyceae

Arthospira platensis (Nordstedt) Gomont

Syn. *Arthospira platensis* Gomont

- 39 History:** < IAM (1983) **Other collection strain no.:** IAM M-135 (=M-222) **Locality:** Lake Chad/Chad **Formerly identified as:** *Spirulina platensis* (Gomont) Geitler **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** SOT; 20°C; 4-10µmol/m²/s; 4 M (25°C; 60-70µmol/m²/s) **Habitat:** Salt water **Characteristics:** Hydrogen evolution; Contains good quality of proteins **Gene data:** 16S rRNA (AB074508); 16S rRNA (DQ393279); CpcB & CpcA (DQ393287); crtB (AB001284); cyaA (D49530); cyaG (D49531); DNA for adenylate cyclase (D49692); groEL (AB039632); gyrB (AB074765); MS (AB548759); mth (AB282753); petH (AB113346); recA (U33924); rpoC1 (AB074788); rpoD1 (AB074815); Total genome sequence (AP011615) **References:** 20, 92, 141, 196, 235, 467, 480, 481, 482, 483, 527, 567, 769, 770, 937, 1003, 1062, 1079, 1133, 1147, 1151, 1159
- 45 History:** < IAM (1983) **Other collection strain no.:** IAM M-184 **Locality:** Lake Kasumigaura/Ibaraki/Japan (1975-11-**) **Isolator:** Watanabe, Makoto M.; Ichimura, Terunobu **Identified by:** Watanabe, Makoto M. **Formerly identified as:** *Spirulina platensis* (Gomont) Geitler **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 25°C; 20-30µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** KAS-6-50 **References:** 192, 235, 383, 567, 1003, 1147, 1151, 1159, 1187, 1219
- 46 History:** < IAM (1983) **Other collection strain no.:** IAM M-185 **Locality:** Lake Texcoco/Mexico **Formerly identified as:** *Spirulina platensis* (Gomont) Geitler **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** SOT; 20°C; 4-10µmol/m²/s; 4 M (25°C; 60-70µmol/m²/s) **Habitat:** Salt water **Characteristics:** Cyanobacterial water bloom (aoko); Hydrogen evolution **Gene data:** CpcB & CpcA (DQ393288) **References:** 17, 20, 26, 27, 139, 235, 383, 467, 567, 1003, 1147, 1151, 1159
- 597 History:** < Hagiwara, Tomiji **Locality:** Lake Teganuma/Chiba/Japan (1990-07-24) **Isolator:** Hagiwara, Tomiji **Identified by:** Hagiwara, Tomiji **Formerly identified as:** *Spirulina platensis* (Gomont) Geitler **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** MA; 22°C; 60-70µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** T-43 **References:** 139, 567

ASTERIONELLOPSIS : Bacillariophyceae

Asterionellopsis glacialis (Castracane) Round

Syn. *Asterionella glacialis* Castracane

- 265 History:** < Sawaguchi, Tomohiro **Locality:** Matoya Bay/Mie/Japan (1984-09-01) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 10°C; 15-20µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Other strain no.:** MB-B-1
- 417 History:** < Riquelme, Carlos E. **Locality:** Maizuru Bay/Kyoto/Japan (1985-10-12) **Isolator:** Riquelme, Carlos E. **Identified by:** Riquelme, Carlos E. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 15 °C ; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Not growing under axenic condition

ASTEROCHLORIS : Trebouxiophyceae

Astrochloris cf. glomerata (Warén) Friedl

- 1298 History:** < Ohmura, Yoshihito **Locality:** Chikurin-ji Temple/Hiroshima/Japan (2002-03-24) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen *Cladia aggregata* on humus) **Characteristics:** Symbiotic; Isolated from

- Cladia aggregata (lichen) on humus **Other strain no.:** AYO4871 **Remarks:** Cryopreserved
- 1299 History:** < Ohmura, Yoshihito **Locality:** Chikurin-ji Temple/Hiroshima/Japan (2002-03-24) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen Cladonia macilenta on a bark roof) **Characteristics:** Symbiotic; Isolated from Cladonia macilenta (lichen) on wood **Other strain no.:** AYO4872 **Remarks:** Cryopreserved
- 1300 History:** < Ohmura, Yoshihito **Locality:** Chikurin-ji Temple/Hiroshima/Japan (2002-03-24) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen Cladia aggregata on a stone wall) **Characteristics:** Symbiotic; Isolated from Cladia aggregata (lichen) on rock **Other strain no.:** AYO4874 **Remarks:** Cryopreserved
- 1301 History:** < Ohmura, Yoshihito **Locality:** Chikurin-ji Temple/Hiroshima/Japan (2002-03-24) **Isolator:** Ohmura, Yoshihito **Identified by:** Takeshita, Shunji **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen Cladia aggregata on soil) **Characteristics:** Symbiotic; Isolated from Cladia aggregata (lichen) on soil **Other strain no.:** AYO4875 **Remarks:** Cryopreserved

ASTEROCOCCUS : Chlorophyceae

Asterococcus superbus (Cienkowski) Scherffel

- 1331 History:** < Nakazawa, Atsushi **Locality:** Tamiyaji-ohike Pond/Mie/Japan (2000-09-**) **Isolator:** Nakazawa, Atsushi **Identified by:** Nakazawa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Gene data:** rbcL (AB175937); rbcL (AB175938); rbcL (AB175939) **Other strain no.:** Asteroco-4 **References:** 662, 665
- 2198 History:** < IAM (2007) < BIU (UTEX) **Other collection strain no.:** IAM C-299; CCAP 3/3A; UTEX 88 **Locality:** Amiens/France **Isolator:** George, E. A. **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat:** Freshwater

ASTREPHOMENE : Chlorophyceae

Astrepomene gubernaculifera Pocock

- 418 History:** < Nozaki, Hisayoshi **Locality:** Kanagawa/Japan (1981-04-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VTAC; 20 °C ; 15-22µmol/m²/s; 20 D **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type(-); Crosses with NIES-419 **Gene data:** atpB (AB014022); atpB (AB014023); psaA (AB044233); psaA (AB044234); psaB (AB044458); psbC (AB044513); psbC (AB044514); rbcL (D63428); rbcL-462 intron (AB076095) **Other strain no.:** 1520-4 (-) **References:** 567, 662, 690, 715, 733, 738, 740, 743
- 419 History:** < Nozaki, Hisayoshi **Locality:** Kaisei, Yoshidajima/Kanagawa/Japan (1981-04-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VTAC; 20°C; 15-22µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type(+); Crosses with NIES-418 **Other strain no.:** 1520-1 (+) **References:** 567, 690
- 628 History:** < Nozaki, Hisayoshi **Locality:** Hayama/Kanagawa/Japan (1980-12-04) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VTAC; 20 °C ; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Isogamy; Mating type(-) **Other strain no.:** 1727-1(-) **Reference:** 567
- 853 History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1392 **Locality:** Emmet County/Michigan/U.S.A. (1961-07-**) **Isolator:** Brooks, A. E. **Identified by:** Brooks, A. E. **States:** Unialgal; Clonal; Axenic[2012 Nov] **Culture conditions:** CB-V; 20°C; 22-27µmol/m²/s; 20 D **Habitat:** (Soil) **Characteristics:** Mixotrophic; Heterothallic **Reference:** 39

- 854 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1394 **Locality:** Monroe County/Indiana/U.S.A. (1962-10-**) **Isolator:** Brooks, A. E. **Identified by:** Brooks, A. E. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VTAC; 20°C; 22-27µmol/m²/s; 20 D **Habitat:** (Soil) **Characteristics:** Mixotrophic; Heterothallic **Gene data:** atpB (AB044181); psaA (AB044235); psaB (AB044459); psbC (AB044515); psbC (AB044516); psbC (AB044517); rbcL (AB044169); rbcL (AB044170) **References:** 39, 733
- 855 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1398 **Locality:** Tulare County/California/U.S.A. (1953-08-**) **Isolator:** Nelson, R. W. **Identified by:** Brooks, A. E. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VTAC; 20°C; 22-27µmol/m²/s; 20 D **Habitat:** (Soil) **Characteristics:** Mixotrophic; Heterothallic **Reference:** 39

Astrephomene perforata Nozaki

- 564 **History:** < Nozaki, Hisayoshi **Other collection strain no.:** UTEX 2474 **Locality:** Hayama/Kanagawa/Japan (1980-12-04) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VTAC; 20 °C ; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Authentic strain; Heterothallic; Isogamy; Mating type(+); Crosses with NIES-565 **Gene data:** atpB (AB014024); psaA (AB044236); psaA (AB044237); psaA (AB044238); psaB (AB044460); psbC (AB044518); psbC (AB044519); rbcL (D63429) **Other strain no.:** 1620-3-2 **References:** 567, 662, 690, 715, 733, 738, 740
- 565 **History:** < Nozaki, Hisayoshi **Other collection strain no.:** UTEX 2475 **Locality:** Hayama/Kanagawa/Japan (1980-12-04) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VTAC; 20 °C ; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Authentic strain; Heterothallic; Isogamy; Mating type(-); Crosses with NIES-564 **Other strain no.:** 1620-4-1 **References:** 567, 690, 714

AULACOSEIRA : Bacillariophyceae

Aulacoseira granulata (Ehrenberg) Simonsen

- 333 **History:** < Hiwatari, Takehiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-05-09) **Isolator:** Hiwatari, Takehiko **Identified by:** Mizuno, Makoto; Kawachi, Masanobu (Reidentify) **Formerly identified as:** Melosira granulata (Ehrenberg) Ralfs var. angustissima O.Müller f. spiralis O.Müller **States:** Unialgal; Clonal; Axenic **Culture conditions:** CSi; 15°C; 10-18µmol/m²/s; 1 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** K-Melo **References:** 137, 973 **Remarks:** Unstable

AULOSIRA : Cyanophyceae

Aulosira laxa Kirchner ex Bornet et Flauhault

- 50 **History:** < IAM (1983) **Other collection strain no.:** IAM M-128 **Locality:** Pusa/India **Isolator:** Venkataraman, G. S. **Formerly identified as:** Aulosira fertilissima Ghose (in IAM) **States:** Unialgal; Non-clonal; Axenic **Culture conditions:** MDM (agar); 20°C; 4-10µmol/m²/s; 4 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Nitrogen fixation **References:** 221, 235, 567, 1159 **Remarks:** Cryopreserved

AUREARENA : Aurearenophyceae

Aurearena cruciata Kai, Yoshii, Nakayama et Inouye

- 1863 **History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2003-05-**) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 25 °C ; 180-200µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Characteristics:** Authentic strain **Other strain no.:** TKB-337 **Reference:** 331
- 1864 **History:** < TKB **Locality:** Noma Beach/Aichi/Japan (2004-06-**) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture**

conditions: f/2; 25°C; 180-200µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Gene data:** psbC (HQ710747) **Other strain no.:** TKB-338 **Reference:** 331

- 1865 History:** < TKB **Locality:** Hashikui Beach/Wakayama/Japan (2005-07-**) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 25°C; 180-200µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Other strain no.:** TKB-339 **Reference:** 331

AUXENOCLORELLA : Trebouxiophyceae

Auxenochlorella protothecoides (Krüger) Kalina et Puncochárová
Syn. Chlorella protothecoides Krüger

- 2163 History:** < IAM (2007) < BIU (UTEX) **Other collection strain no.:** IAM C-150; SAG 211-11a; UTEX 29; ATCC 30581; ATCC 13482; CCAP 211/11a; (BIU 29) **Isolator:** Pringsheim, E. G. **Identified by:** Kessler, E. (1991) **Formerly identified as:** Chlorella vulgaris Beijerinck **States:** Unialgal; Clonal; Axenic **Culture conditions:** Pro (agar); 20°C; 8-15µmol/m²/s; 3 M **References:** 190, 226, 385, 424, 425, 498, 499, 1212 **Remarks:** Cryopreserved
- 2164 History:** < IAM (2007) < Tsuzuki, Mikio (2005) < IAM (1994) **Other collection strain no.:** IAM C-624 (=C-202) **Identified by:** Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Axenic **Culture conditions:** Pro (agar); 20°C; 8-15µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488569) **Remarks:** Cryopreserved
- 2165 History:** < IAM (10th lab. < 7th lab.) (2007) < Krauss **Other collection strain no.:** IAM C-206 **Identified by:** Confirmed at NIES by DNA sequencing **Formerly identified as:** Chlorella protothecoides Krüger var. mannophila Shihira et Krauss **States:** Unialgal; Clonal; Axenic **Culture conditions:** Pro (agar); 20°C; 8-15µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488570) **Reference:** 1211 **Remarks:** Cryopreserved
- 2176 History:** < IAM (2007) < BIU (UTEX; 1965) **Other collection strain no.:** IAM C-201; UTEX 838; CCAP 211/22 **Isolator:** Lewin, Ralph A. **Identified by:** Re-identified at NIES by DNA sequencing **Formerly identified as:** Chlorella sp. **States:** Unialgal; Clonal; Axenic **Culture conditions:** Pro (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat:** (The freshwater sponge Spongilla flutuatalis) **Gene data:** 18S rRNA (AB488571) **Reference:** 385 **Remarks:** Cryopreserved

BASICHLAMYS : Chlorophyceae

Basichlamys sacculifera (Scherffel) Skuja
Syn. Gonium sacculiferum Scherffel

- 566 History:** < Nozaki, Hisayoshi **Locality:** Fujisawa/Kanagawa/Japan (1983-08-01) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater (Pond sediment) **Gene data:** atpB (AB014015); psaA (AB044416); psaB (AB044467); psaB (AB044468); psbC (AB044526); rbcL (D63430) **Other strain no.:** 3907-1 **References:** 567, 695, 715, 718, 733, 738, 740

BATHYCOCCUS : Prasinophyceae

Bathycoccus prasinos Eikrem et Thronsdæn

- 2670 History:** < RCC (2010) **Other collection strain no.:** RCC 419 **Locality:** English Channel/Brittany Coast/France (2001-06-14) **Isolator:** Le Gall, F.; Le Gall, F. (Re-isolation) **Identified by:** Confirmed at RCC by DNA sequencing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** K; 15°C; 4-8µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** RD010614-71-3

BATRACHOSPERMUM : Florideophyceae

Batrachospermum atrum (Hudson) Harvey

- 1456 History:** < Higa, Atsushi **Locality:** Fukui/Japan (2003-05-25) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** BF1 **Reference:** 142

Batrachospermum helminthosum Bory

- 1457 History:** < Higa, Atsushi **Locality:** Fukui/Japan (2003-05-25) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; NT **Other strain no.:** BF3 **Reference:** 142

Batrachospermum sp.

- 1459 History:** < Kawachi, Masanobu **Locality:** Kuma River/Kumamoto/Japan (2001-11-26) **Isolator:** Iwaki, Hiroyuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic **Other strain no.:** KUM-2
- 1460 History:** < Higa, Atsushi **Locality:** Ohkubo-ga/Okinawa/Japan (2002-03-16) **Isolator:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic **Other strain no.:** BO2

Batrachospermum turfosum Bory

Syn. *Batrachospermum vagum* (Roth) Agardh

- 2136 History:** < IAM (2007) **Other collection strain no.:** IAM R-4 **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; Bold 3N; 20°C; 3-12µmol/m²/s; 3 M **Characteristics:** VU

Batrachospermum virgato-decaisneanum Sirodot

- 1458 History:** < Higa, Atsushi **Locality:** Fukui/Japan (2003-05-25) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** BF2

BICOSOECA : Bicoecea

Bicosoeca sp.

- 1438 History:** < TKB **Locality:** Akashi/Hyogo/Japan (2004-12-10) **Isolator:** Yubuki, Naoji **Identified by:** Yubuki, Naoji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** SUY 1/10 + Wheat; 20°C; 0µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Heterotrophic; Benthic **Other strain no.:** TKB-211 (NY0158)

BIGELOWIELLA : Chlorarachniophyceae

Bigelowiella natans Moestrup

- 2677 History:** < RCC (2010) **Other collection strain no.:** RCC 337 **Locality:** Mediterranean Sea (1999-09-30) **Isolator:** Partensky, F.; Le Gall, F. (Re-isolation) **Identified by:** Confirmed at RCC by DNA sequencing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** PROSOPE_153-1

BLIDINGIA : Ulvophyceae

Blidingia minima (Nägeli) Kylin

- 1837 History:** < TKB **Locality:** Yumenoshima/Tokyo/Japan (2005-01-**) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** IMK; 20°C; 20-30µmol/m²/s; 2 M **Habitat:** (Seawater) **Other strain no.:** TKB-271

BODO : Kinetoplastea

Bodo saltans Ehrenberg

- 1439 History:** < TKB Locality: Tsukuba/Ibaraki/Japan (2002-10-13) **Isolator:** Yubuki, Naoji **Identified by:** Yubuki, Naoji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** URO + Wheat; 15°C; 0µmol/m²/s; 1 M **Habitat:** Freshwater (Water) **Characteristics:** Heterotrophic **Other strain no.:** TKB-013 (NY0117)

BOLIDOMONAS : Bolidophyceae

Bolidomonas mediterranea Guillou et Chrétiennot-Dinet

- 2681 History:** < RCC (2010) **Other collection strain no.:** RCC 238; CCMP 1867 **Locality:** Mediterranean Sea (1996-06-19) **Isolator:** Vaulot, Daniel **Identified by:** Guillou, L. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** K; 20°C; 22-32µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Authentic strain **Other strain no.:** MIN 129-20m Aa

Bolidomonas pacifica Guillou et Chrétiennot-Dinet

- 2682 History:** < RCC (2010) **Other collection strain no.:** RCC 205; CCMP 1866 **Locality:** Equatorial Pacific (1994-11-11) **Isolator:** Vaulot, Daniel **Identified by:** Guillou, L. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** IMK; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Authentic strain **Other strain no.:** OLI 31 SE3

Bolidomonas sp.

- 2683 History:** < RCC (2010) **Other collection strain no.:** RCC 852 **Locality:** South East Pacific (2004-11-02) **Isolator:** Vaulot, Daniel; Le Gall, F. (Re-isolation) **Identified by:** Confirmed at RCC by DNA sequencing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** K; 20°C; 22-32µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** Biosope_47 C2

BOTRYDIOPSIS : Xanthophyceae

Botrydiopsis arrhiza Borzi

- 621 History:** < CCAP **Other collection strain no.:** CCAP 222/1B **Locality:** England/U.K. **Isolator:** George **States:** Unialgal **Culture conditions:** AF-6; 20°C; 32-40µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Reference:** 137

BOTRYDIUM : Xanthophyceae

Botrydium granulatum (L.) Greville

- 622 History:** < CCAP **Other collection strain no.:** CCAP 805/3A **Isolator:** Vischer, W. **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** AF-6; 20°C; 32-40µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Reference:** 137

BOTRYOCOCCUS : Trebouxiophyceae

Botryococcus braunii Kützing

- 836 History:** < Mori, Fumi **Locality:** Imuta-ike Pond/Kagoshima/Japan (1997-06-**) **Isolator:** Mori, Fumi **Identified by:** Mori, Fumi **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** AF-6; 20°C; 15-22µmol/m²/s; 4 M **Habitat:** Freshwater (Pond water) **Gene data:** 18S rRNA (AB780364); 18S rRNA (JQ941954); rbcL (JQ941955) **Remarks:** Cryopreserved; very slow growth

- 2199 History:** < IAM (2007) < Hara, Yoshiaki < UTEX (1986) **Other collection strain no.:** IAM C-529; CCAP 807/1; UTEX LB572; SAG B 807-1 **Isolator:** Droop, M. R. **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB780365) **Remarks:** very slow growth

BRACHIOMONAS : Chlorophyceae

Brachiomonas submarina Bohlin

- 375 History:** < Sawaguchi, Tomohiro **Locality:** Hachinohe Harbor/Aomori/Japan (1986-08-13)

Isolator: Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal;
Axenic **Culture conditions:** ESM; 15°C; 20-30 μ mol/m²/s; 1 M **Habitat:** Brackish water (Water)
Other strain no.: 86-SuHH-2 **Reference:** 567

BRACTEACOCCUS : Chlorophyceae

Bracteacoccus giganteus Bischoff et Bold

2200 History: < IAM (2007) **Other collection strain no.:** IAM C-388 **States:** Unialgal; Clonal;
Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15 μ mol/m²/s; 3 M

Bracteacoccus sp.

2574 History: < IAM (2007) **Other collection strain no.:** IAM C-172 **Locality:** Marble
Point/Antarctica **Isolator:** Holm-Hansen, O. **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture
conditions:** C; 20°C; 8-15 μ mol/m²/s; 3 M **Other strain no.:** Holm-Hansen M-37

BUMILLERIOPSIS : Xanthophyceae

Bumilleriopsis petersiana Vischer et Pascher

2505 History: < Inouye, Isao **Locality:** Nabeta Bay/Shizuoka/Japan (2007-04-**) **Isolator:** Chikuni,
Tomoko **Identified by:** Chikuni, Tomoko (2007-**-**) **States:** Unialgal; Clonal; Non-axenic
Culture conditions: C; 20°C; 10-15 μ mol/m²/s; 1 M **Habitat:** Freshwater (Water) **Other strain
no.:** TKB-353

CAFETERIA : Bicoecea

Cafeteria roenbergensis Fenchel et Patterson

1012 History: < Moriya, Mayumi **Locality:** Nirigahama/Wakayama/Japan (2002-01-04) **Isolator:**
Moriya, Mayumi **Identified by:** Moriya, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture
conditions:** SUY 1/10; 15°C; 0 μ mol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:**
Phagotrophic; Heterotrophic **Other strain no.:** #106

CALCIDISCUS : Prymnesiophyceae

Calcidiscus leptopus (Murray et Blackman) Loeblich Jr. et Tappan

1304 History: < Kawachi, Masanobu **Locality:** Hachijo Isl., Yaene Harbor/Tokyo/Japan (2002-01-23)
Isolator: Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal;
Non-axenic; Coccolith(+) [2013 Jan] **Culture conditions:** MNK; 20°C; 25-40 μ mol/m²/s; 14-20 D
Habitat: Marine (Seawater) **Other strain no.:** MH 34

1305 History: < Kawachi, Masanobu **Locality:** East China Sea (2003-08-06) **Isolator:** Noël,
Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic **Culture
conditions:** MNK; 20°C; 25-40 μ mol/m²/s; 14-20 D **Habitat:** Marine (Seawater) **Other strain no.:**
MH 68

CALOTHRIX : Cyanophyceae

Calothrix brevissima G.S. West

22 History: < IAM (1983) **Other collection strain no.:** IAM M-7 (=M-249) **Locality:** Palau
Isl./Palau (1941-09-**) **Isolator:** Watanabe, Atsushi **Identified by:** Negoro, Ken-ichiro **States:**
Unialgal; Non-clonal; Axenic **Culture conditions:** MDM (agar); 20°C; 4-10 μ mol/m²/s; 4 M
(25°C; 70-80 μ mol/m²/s) **Habitat:** Freshwater (Soil) **Characteristics:** Nitrogen fixation; Chromatic
adaptation **Gene data:** 16S rRNA (AB074504); gyrB (AB074768); rpoC1 (AB074791); rpoD1
(AB074818) **References:** 235, 567, 843, 937, 1123, 1125 **Remarks:** Cryopreserved

2097 History: < IAM (2007) < Tsuzuki, Mikio (2005) < IAM (1994) **Other collection strain no.:** IAM
M-277 (=M-37) **Isolator:** Ishikawa, Masako **Identified by:** Fukushima, Hiroshi; Maruyama, Ko
States: Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 13-18 μ mol/m²/s; 3

M Habitat: Terrestrial **Characteristics:** Chromatic adaptation **Other strain no.:** D59 · W

Calothrix crustacea Thuret ex Bornet et Flauhault

- 266 History:** < IAM (1983) **Other collection strain no.:** IAM M-171 **Locality:** Oshoro Bay/Hokkaido/Japan (1972-09-**) **Isolator:** Watanabe, Makoto M.; Ichimura, Terunobu **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 4-10µmol/m²/s; 6 M (20°C; 15-27µmol/m²/s) **Habitat:** Marine (Seawater) **References:** 235, 567, 1147, 1163 **Remarks:** Cryopreserved

Calothrix elenkinii Kossinskaja

- 2098 History:** < IAM (2007) < Ishikawa, Masako **Other collection strain no.:** IAM M-61 **Isolator:** Ishikawa, Masako **Identified by:** Maruyama, Ko **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** MDM (agar); 20°C; 13-18µmol/m²/s; 3 M **Other strain no.:** Ishikawa 103X (1) W-N-F

Calothrix gracilis Fritsch

- 2099 History:** < IAM (2007) < Ishikawa, Masako **Other collection strain no.:** IAM M-55 **Isolator:** Ishikawa, Masako **Identified by:** Maruyama, Ko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 13-18µmol/m²/s; 3 M **Other strain no.:** Ishikawa 73. O161W

- 2100 History:** < IAM (2007) < Ishikawa, Masako **Other collection strain no.:** IAM M-56 **Isolator:** Ishikawa, Masako **Identified by:** Maruyama, Ko **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** MDM (agar); 20°C; 13-18µmol/m²/s; 3 M **Other strain no.:** Ishikawa 78. F243D

Calothrix parasitica Thuret ex Bornet et Flauhault

- 267 History:** < IAM (1983) **Other collection strain no.:** IAM M-172 (=M-226) **Locality:** Oshoro Bay/Hokkaido/Japan (1972-07-**) **Isolator:** Watanabe, Makoto M.; Ichimura, Terunobu **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 4-10µmol/m²/s; 6 M (20°C; 15-27µmol/m²/s) **Habitat:** Marine (Seaweed) **Characteristics:** Endophyte in Nemalion (Rhodophyceae) **References:** 139, 235, 567 **Remarks:** Cryopreserved

- 334 History:** < IAM (1983) **Other collection strain no.:** IAM M-173 (=M-227) **Locality:** Oshoro Bay/Hokkaido/Japan (1973-02-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 4-10µmol/m²/s; 6 M (20°C; 15-27µmol/m²/s) **Habitat:** Marine (Seaweed) **Characteristics:** Endophyte in Codium (Ulvophyceae) **References:** 235, 567 **Remarks:** Cryopreserved

Calothrix scopulorum Agardh ex Bornet et Flauhault

- 268 History:** < IAM (1983) **Other collection strain no.:** IAM M-174 **Locality:** Oshoro Bay/Hokkaido/Japan (1972-09-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; MKM (agar); 20°C; 4-10µmol/m²/s; 6 M (20°C; 15-27µmol/m²/s) **Habitat:** Marine **References:** 139, 235, 567, 1147, 1163 **Remarks:** Cryopreserved

Calothrix sp.

- 2101 History:** < IAM (2007) < Katoh, Hiroshi **Other collection strain no.:** IAM M-290 **Locality:** Himeji/Hyogo/Japan (2002-**-**) **Isolator:** Katoh, Hiroshi **Identified by:** Katoh, Hiroshi **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** BG-11 (agar); 20°C; 13-18µmol/m²/s; 3 M **Habitat:** Terrestrial **Characteristics:** Drought tolerance **Other strain no.:** HK-05

CALYPTROSPHAERA : Prymnesiophyceae

Calyptrosphaera sphaeroidea Schiller

- 997 History:** < Kawachi, Masanobu **Locality:** Hikimoto Bay/Mie/Japan (2001-08-06) **Isolator:** Hata, Naotsugu **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic; Coccolith(+) [2013 Jan] **Culture conditions:** MNK; 20°C; 20-30µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Holococcolith stage **Other strain no.:** 13K **Reference:** 684

- Remarks:** Fragile species to transportaion stresses
- 1308 History:** < Kawachi, Masanobu **Locality:** Miyake Isl., Chotaro-ike Pond/Tokyo/Japan (1999-11-23) **Isolator:** Kawachi, Masanobu **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic; Coccolith(+)[2013 Jan] **Culture conditions:** MNK; 20°C; 22-32µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide; Heterococcolith stage **Other strain no.:** MK18
- 1309 History:** < Kawachi, Masanobu **Locality:** Miyake Isl., Chotaro-ike Pond/Tokyo/Japan (1999-11-23) **Isolator:** Kawachi, Masanobu **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic; Coccolith(+)[2013 Jan] **Culture conditions:** MNK; 20°C; 22-32µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide; Holococcolith stage **Other strain no.:** MK21 **Remarks:** Fragile species to transportaion stresses
- 1811 History:** < TKB **Locality:** Nabeta Bay/Shizuoka/Japan (2005-05-11) **Isolator:** Chikuni, Tomoko **Identified by:** Yoshida, Masaki (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-252
- 2774 History:** < Kawachi, Masanobu < Noël, Mary-Hélène **Locality:** Sagami Bay/Japan (2009-05-05) **Isolator:** Noël, Mary-Hélène (2010-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Holococcolith stage **Other strain no.:** MH 310 **Remarks:** Fragile species to transportation stresses
- 2775 History:** < Kawachi, Masanobu < Noël, Mary-Hélène **Locality:** Sagami Bay/Japan (2009-05-05) **Isolator:** Noël, Mary-Hélène (2010-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** MH 311

CARTERIA : Chlorophyceae

Carteria cerasiformis Nozaki, Aizawa et M.M. Watanabe

- 424 History:** < Suda, Shoichiro **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-08-22) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **Formerly identified as:** Carteria inversa (Korshikov) Bourrelly **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** AF-6; 20°C; 22-27µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** rbcL (D89767) **Other strain no.:** Kas-10 **References:** 567, 710, 719
- 425 History:** < Suda, Shoichiro **Locality:** Tsukuba/Ibaraki/Japan (1985-11-05) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **Formerly identified as:** Carteria inversa (Korshikov) Bourrelly **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 22-27µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Characteristics:** Authentic strain **Gene data:** atpB (AB084321); psaB (AB084359); rbcL (D89768) **Other strain no.:** w-8-15 **References:** 378, 567, 710, 719, 740

Carteria crucifera Korshikov ex Pascher

- 421 History:** < Suda, Shoichiro **Locality:** Tsuchiura/Ibaraki/Japan (1986-02-**) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** CYT; 20°C; 22-27µmol/m²/s; 2 M **Habitat:** Freshwater (Sediment) **Gene data:** atpB (AB084320); psaB (AB084358); rbcL (D63431) **Other strain no.:** SIST3-1 **References:** 567, 710, 715, 719, 740
- 630 History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 432 **Locality:** New Haven/U.S.A. **Isolator:** Lewin, Ralph A. **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater **Gene data:** rbcL (D89758) **References:** 567, 710, 719

Carteria eugametos Mitra

- 631 History:** < Nozaki, Hisayoshi **Locality:** Kawasaki, Saiwai-ku/Kanagawa/Japan (1990-10-29) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal;

Non-axenic **Culture conditions:** AF-6; 20°C; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic; Isogamy **Gene data:** rbcL (D89762) **Other strain no.:** 91-409-1 **References:** 567, 705, 719

632 History: < Nozaki, Hisayoshi **Locality:** Kawasaki, Sawai-ku/Kanagawa/Japan (1990-10-29) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater (Soil) **Characteristics:** Homothallic; Isogamy **Gene data:** rbcL (D89763) **Other strain no.:** 91-421-4 **References:** 567, 705, 710, 719

633 History: < Nozaki, Hisayoshi **Locality:** Shirako/Chiba/Japan (1991-03-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic; Isogamy **Gene data:** rbcL (D89764) **Other strain no.:** 91-504-1 **References:** 567, 705, 710, 719

634 History: < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 2161 **Isolator:** Vandover, B. **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater **Gene data:** rbcL (D89761) **References:** 567, 710, 719

635 History: < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 233 **Locality:** Allahabad/India **Isolator:** Pringsheim, O. **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Authentic strain **Gene data:** rbcL (D89759) **References:** 567, 710, 719

636 History: < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1032 **Locality:** California/U.S.A. **Isolator:** Waters, A. **Identified by:** Nozaki, Hisayoshi **Formerly identified as:** Carteria olivieri G.S. West **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater (Soil) **Gene data:** rbcL (D89760) **References:** 567, 710, 719

Carteria inversa (Korshikov) Bourrelly

422 History: < Suda, Shoichiro **Locality:** Tsukuba/Ibaraki/Japan (1982-11-02) **Isolator:** Kasai, Fumie **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 22-27µmol/m²/s; 3 M **Habitat:** Freshwater (Pond water) **Gene data:** rbcL (D89765) **Other strain no.:** 134-4 **References:** 204, 567, 710, 719, 1088

423 History: < Suda, Shoichiro **Locality:** Higashihiroshima/Hiroshima/Japan (1983-08-**) **Isolator:** Erata, Mayumi **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 22-27µmol/m²/s; 3 M **Habitat:** Freshwater (Pond water) **Gene data:** rbcL (D89766) **Other strain no.:** 106 **References:** 567, 710, 719

Carteria klebsii (Dangeard) Francé

426 History: < Suda, Shoichiro **Locality:** Tsuchiura/Ibaraki/Japan (1986-02-**) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 22-27µmol/m²/s; 2 M **Habitat:** Freshwater (Pond sediment) **Other strain no.:** SIST7-4 **Reference:** 567

Carteria multifilis (Fresenius) Dill

427 History: < Suda, Shoichiro **Locality:** Kashiwa/Chiba/Japan (1986-**-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20°C; 22-27µmol/m²/s; 2 M **Habitat:** Freshwater (Exudation from reclaimed land) **Other strain no.:** Ca1-2 **Reference:** 567

Carteria obtusa Dill

428 History: < Suda, Shoichiro **Locality:** Kashiwa/Chiba/Japan (1986-09-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 22-27µmol/m²/s; 2 M **Habitat:** Freshwater (Exudation from reclaimed land) **Gene data:**

atpB (AB084323); psaB (AB084361); psaB (AB084362); psaB (AB084363); rbcL (D89769)
Other strain no.: Ca-2-1 **References:** 567, 719, 740

429 History: < Suda, Shoichiro **Locality:** Tsuchiura/Ibaraki/Japan (1986-02-**) **Isolator:** Kasama, Mayumi **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 22-27µmol/m²/s; 2 M **Habitat:** Freshwater (Pond sediment) **Other strain no.:** SIS5-20 **Reference:** 567

430 History: < Suda, Shoichiro **Locality:** Kashiwa/Chiba/Japan (1986-09-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 22-27µmol/m²/s; 2 M **Habitat:** Freshwater (Exudation from reclaimed land) **Other strain no.:** Ca2-3 **Reference:** 567

431 History: < Suda, Shoichiro **Locality:** Tsuchiura/Ibaraki/Japan (1986-02-**) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 22-27µmol/m²/s; 2 M **Habitat:** Freshwater (Pond sediment) **Other strain no.:** SIST6-3 **Reference:** 567

Carteria palmata Suda, Nozaki et M.M. Watanabe

1336 History: < Suda, Shoichiro **Locality:** Mitsukaido/Ibaraki/Japan (1985-07-03) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Authentic strain; mating type(−) **Gene data:** atpB (AB204870); psaB (AB204871); rbcL (AB204869) **Other strain no.:** KY-1 **Reference:** 985

1337 History: < Suda, Shoichiro **Locality:** Mitsukaido/Ibaraki/Japan (1985-07-03) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Mating type(−) **Other strain no.:** KY-8 **Reference:** 985

1338 History: < Suda, Shoichiro **Locality:** Mitsukaido/Ibaraki/Japan (1985-07-03) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Mating type(+) **Other strain no.:** KY-24 **Reference:** 985

Carteria radiosa Korshikov ex Pascher

432 History: < Suda, Shoichiro **Locality:** Tsukuba/Ibaraki/Japan (1985-11-05) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Gene data:** atpB (AB084322); psaB (AB084360); rbcL (D89770) **Other strain no.:** w-5-2 **References:** 567, 719, 740

Carteria sp.

2311 History: < Suda, Shoichiro **Locality:** Shimokubo Dam/Gunma/Japan (1980-04-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Other strain no.:** SM-6-3

2312 History: < Suda, Shoichiro **Locality:** Mitsukaido/Ibaraki/Japan (1986-04-12) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** 412KY-9

2313 History: < Suda, Shoichiro **Locality:** Tsukuba/Ibaraki/Japan (1985-11-05) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** w-39-4

CAVERNOMONAS : Sarcomonadea

Cavernomonas stercoris Vickerman

- 2434 History:** < Bass, David **Locality:** Great Salt Lake/U.S.A. (1999-**-**) **Isolator:** Vickerman, Keith **Identified by:** Vickerman, Keith (2008-**-**) **Culture conditions:** AF-6 + Wheat; 20°C; 0µmol/m²/s; 2-3 M **Habitat:** Terrestrial (American bison dung) **Characteristics:** Heterotrophic; Authentic strain; Resting spore forming **Other strain no.:** Cav-E **Reference:** 32

CERCOMONAS : Sarcomonadea

Cercomonas ambigua Howe et Cavalier-Smith

- 2435 History:** < Bass, David **Locality:** Wytham Wood/U.K. (2006-**-**) **Isolator:** Howe, Alexis T. **Identified by:** Bass, David; Howe, Alexis T. (2008-**-**) **Culture conditions:** AF-6 + Wheat; 20°C; 0µmol/m²/s; 2-3 M **Habitat:** Terrestrial (Soil) **Characteristics:** Heterotrophic; Authentic strain; Resting spore forming **Other strain no.:** WA82 **Reference:** 32

Cercomonas dactyloptera Mylnikov et Karpov

- 2436 History:** < Bass, David **Locality:** Russia (1979-**-**) **Isolator:** Mylnikov, Alexandre P. **Identified by:** Mylnikov, Alexandre P. (2004-**-**) **Culture conditions:** AF-6 + Wheat; 20°C; 0µmol/m²/s; 2-3 M **Habitat:** Freshwater (Sewerage water) **Characteristics:** Heterotrophic; Authentic strain; Resting spore forming **Other strain no.:** C-43 **Reference:** 32

Cercomonas effusa Vickerman

- 2437 History:** < Bass, David **Locality:** Montezuma's Castle/Arizona/U.S.A. (2001-**-**) **Isolator:** Vickerman, Keith **Identified by:** Vickerman, Keith (2008-**-**) **Culture conditions:** AF-6 + Wheat; 20°C; 0µmol/m²/s; 2-3 M **Habitat:** Freshwater (Sediment) **Characteristics:** Heterotrophic; Authentic strain; Resting spore forming **Other strain no.:** Beaver-Creek **Reference:** 32

Cercomonas fastiga Bass et Cavalier-Smith

- 2438 History:** < Bass, David **Locality:** U.K. (2003-**-**) **Isolator:** Bass, David **Identified by:** Bass, David; Howe, Alexis T. (2008-**-**) **Culture conditions:** AF-6 + Wheat; 20°C; 0µmol/m²/s; 2-3 M **Habitat:** Terrestrial (Soil) **Characteristics:** Heterotrophic; Authentic strain; Resting spore forming **Other strain no.:** 18-3D **Reference:** 32

Cercomonas hederae Howe et Cavalier-Smith

- 2439 History:** < Bass, David **Locality:** U.K. (2006-**-**) **Isolator:** Howe, Alexis T. **Identified by:** Bass, David; Howe, Alexis T. (2008-**-**) **Culture conditions:** AF-6 + Wheat; 20°C; 0µmol/m²/s; 2-3 M **Habitat:** Terrestrial (Plant (Ivy leaf)) **Characteristics:** Heterotrophic; Authentic strain; Resting spore forming **Other strain no.:** IVY20 **Reference:** 32

Cercomonas hiberna Howe et Cavalier-Smith

- 2440 History:** < Bass, David **Locality:** Wytham Wood/U.K. (2006-**-**) **Isolator:** Howe, Alexis T. **Identified by:** Bass, David; Howe, Alexis T. (2008-**-**) **Culture conditions:** AF-6 + Wheat; 20°C; 0µmol/m²/s; 2-3 M **Habitat:** Terrestrial (Soil) **Characteristics:** Heterotrophic; Authentic strain; Resting spore forming **Other strain no.:** W70 **Reference:** 32

Cercomonas laeva Bass, Mylnikov et Cavalier-Smith

- 2441 History:** < Bass, David **Locality:** Russia (2000-**-**) **Isolator:** Mylnikov, Alexandre P. **Identified by:** Bass, David; Howe, Alexis T. (2008-**-**) **Culture conditions:** AF-6 + Wheat; 20°C; 0µmol/m²/s; 2-3 M **Habitat:** Terrestrial (Plant (Moss)) **Characteristics:** Heterotrophic; Authentic strain; Resting spore forming **Other strain no.:** C-72 **Reference:** 32

Cercomonas lata Bass, Mylnikov et Cavalier-Smith

- 2442 History:** < Bass, David **Locality:** Russia (2001-**-**) **Isolator:** Mylnikov, Alexandre P. **Identified by:** Bass, David; Howe, Alexis T. (2008-**-**) **Culture conditions:** AF-6 + Wheat; 20°C; 0µmol/m²/s; 2-3 M **Habitat:** Freshwater (Pond water) **Characteristics:** Heterotrophic; Authentic strain; Resting spore forming **Other strain no.:** C-85 **Reference:** 32

Cercomonas magna Howe et Cavalier-Smith

- 2443 History:** < Bass, David **Locality:** U.K. (2006-**-**) **Isolator:** Howe, Alexis T. **Identified by:** Bass, David; Howe, Alexis T. (2008-**-**) **Culture conditions:** AF-6 + Wheat; 20°C;

0 μ mol/m²/s; 2-3 M **Habitat**: Terrestrial (Plant (Ivy leaf)) **Characteristics**: Heterotrophic; Authentic strain; Resting spore forming **Other strain no.**: IVY8C **Reference**: 32

Cercomonas mutans Howe et Cavalier-Smith

- 2444 **History**: < Bass, David **Locality**: Wytham Wood/U.K. (2006-**-**) **Isolator**: Howe, Alexis T. **Identified by**: Bass, David; Howe, Alexis T. (2008-**-**) **Culture conditions**: AF-6 + Wheat; 20°C; 0 μ mol/m²/s; 2-3 M **Habitat**: Terrestrial (Soil) **Characteristics**: Heterotrophic; Authentic strain; Resting spore forming **Other strain no.**: W40a **Reference**: 32

Cercomonas parambigua Howe et Cavalier-Smith

- 2445 **History**: < Bass, David **Locality**: Wytham Wood/U.K. (2006-**-**) **Isolator**: Howe, Alexis T. **Identified by**: Bass, David; Howe, Alexis T. (2008-**-**) **Culture conditions**: AF-6 + Wheat; 20°C; 0 μ mol/m²/s; 2-3 M **Habitat**: Terrestrial (Soil) **Characteristics**: Heterotrophic; Authentic strain; Resting spore forming **Other strain no.**: WA22 **Reference**: 32

CHAETOCEROS : Bacillariophyceae

Chaetoceros didymus Ehrenberg

- 586 **History**: < Ono, Sachiko **Locality**: Hitachi/Ibaraki/Japan (1990-09-26) **Isolator**: Ono, Sachiko **Identified by**: Ono, Sachiko **States**: Unialgal; Non-clonal; Non-axenic **Culture conditions**: f/2; 15°C; 10-18 μ mol/m²/s; 1 M **Habitat**: Marine (Seawater) **Characteristics**: Red tide **Other strain no.**: St-4

Chaetoceros sociale Lauder

- 377 **History**: < Sawaguchi, Tomohiro **Locality**: Shitaru Harbor/Shizuoka/Japan (1985-05-22) **Isolator**: Sawaguchi, Tomohiro **Identified by**: Sawaguchi, Tomohiro **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: f/2; 10°C; 6-12 μ mol/m²/s; 2 M **Habitat**: Marine (Seawater) **Other strain no.**: STHB-4

- 553 **History**: < Ono, Sachiko **Locality**: Tokyo Bay/Tokyo/Japan (1991-10-**) **Isolator**: Ono, Sachiko **Identified by**: Ono, Sachiko **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: f/2; 5°C; 15-20 μ mol/m²/s; 1 M **Habitat**: Marine (Seawater) **Characteristics**: Red tide **Other strain no.**: T-1

CHAMAESIPHON : Cyanophyceae

Chamaesiphon polymorphus Geitler

- 433 **History**: < Kasai, Fumie **Locality**: Lake Mashu/Hokkaido/Japan (1987-09-02) **Isolator**: Kasai, Fumie **Identified by**: Watanabe, Makoto M. **States**: Unialgal; Non-clonal; Non-axenic **Culture conditions**: CSi; 10°C; 6-12 μ mol/m²/s; 2 M (10°C; 10-15 μ mol/m²/s) **Habitat**: Freshwater (Lake water) **Other strain no.**: M-29 **References**: 139, 567, 1018, 1019

Chamaesiphon subglobosus Lemmermann

- 434 **History**: < Kasai, Fumie **Locality**: Miyata River/Ibaraki/Japan (1987-03-25) **Isolator**: Kasai, Fumie **Identified by**: Takamura, Noriko **States**: Unialgal; Non-clonal; Non-axenic **Culture conditions**: CSi; CSi + Cu; 20°C; 4-10 μ mol/m²/s; 3 M (20°C; 15-27 μ mol/m²/s) **Habitat**: Freshwater (River water) **Other strain no.**: 2st-2-1 **References**: 139, 567, 1017, 1018, 1019
Remarks: Cryopreserved

CHANTRANSIA : Florideophyceae

Chantransia macrospora Wood

- 2636 **History**: < Suda, Shoichiro **Locality**: Ryukyu University/Okinawa/Japan (2006-02-06) **Isolator**: Suda, Shoichiro **Identified by**: Kato, Aki (2009-06-02) **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: C; 20 °C ; 15-20 μ mol/m²/s; 1-2 M **Habitat**: Freshwater (Plant) **Characteristics**: Epiphytic; Probably intruding species **Gene data**: 18S rRNA (AB503215); rbcL (AB503216) **Other strain no.**: 3-AB **Reference**: 362

CHARA : Charophyceae

Chara australis R. Brown

- 2084 **History:** < Shimmen, Teruo **Isolator:** Ishimoto, Miwa (Re-isolation) **Identified by:** Sakayama, Hidetoshi (2005-04-19) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 22°C; 16-20µmol/m²/s; 3 M **Habitat:** Freshwater **Characteristics:** Dioecious; Male **Other strain no.:** CH-25♂
- 2085 **History:** < Shimmen, Teruo **Isolator:** Ishimoto, Miwa (Re-isolation) **Identified by:** Sakayama, Hidetoshi (2005-04-19) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 22°C; 16-20µmol/m²/s; 3 M **Habitat:** Freshwater **Characteristics:** Dioecious; Female **Other strain no.:** CH-25♀

Chara australis R.Brown

- 1585 **History:** < Shimmen, Teruo **Identified by:** Sakayama, Hidetoshi (2005-04-19) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 22°C; 16-20µmol/m²/s; 3 M **Habitat:** Freshwater **Characteristics:** Dioecious; Female; Male **Other strain no.:** CH-25

Chara braunii Gmelin

- 1586 **History:** < Nozaki, Hisayoshi **Locality:** Lake Chuzenji/Tochigi/Japan (1994-09-07) **Identified by:** Nozaki, Hisayoshi **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 20°C; 16-20µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; VU **Gene data:** atpB, atpB-rbcL IGS, rbcL (AB363923) **Other strain no.:** CH-6 **Reference:** 369
- 1587 **History:** < Sakayama, Hidetoshi **Locality:** Kasai/Hyogo/Japan (2004-06-18) **Isolator:** Ishimoto, Miwa **Identified by:** Sakayama, Hidetoshi (2004-06-19) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 20°C; 16-20µmol/m²/s; 6 M **Habitat:** Freshwater **Characteristics:** Monoecious; VU **Gene data:** atpB, atpB-rbcL IGS, rbcL (AB363924) **Other strain no.:** CH-70 **Reference:** 369
- 1588 **History:** < Sakayama, Hidetoshi **Locality:** Hazama-ohike Pond/Kagawa/Japan (2004-06-17) **Isolator:** Ishimoto, Miwa **Identified by:** Sakayama, Hidetoshi (2004-06-18) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 20°C; 16-20µmol/m²/s; 6 M **Habitat:** Freshwater **Characteristics:** Monoecious; VU **Gene data:** atpB, atpB-rbcL IGS, rbcL (AB363925) **Other strain no.:** CH-72 **Reference:** 369
- 1589 **History:** < Sakayama, Hidetoshi **Locality:** Narasu-ike Pond/Kagawa/Japan (2004-06-16) **Identified by:** Sakayama, Hidetoshi (2004-06-17) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 20°C; 16-20µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; VU **Gene data:** atpB, atpB-rbcL IGS, rbcL (AB363926) **Other strain no.:** CH-75 **Reference:** 369
- 1590 **History:** < Sakayama, Hidetoshi **Locality:** Tsuchiura, Ohiwata/Ibaraki/Japan (2004-07-11) **Isolator:** Ishimoto, Miwa **Identified by:** Sakayama, Hidetoshi (2004-07-12) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 20°C; 16-20µmol/m²/s; 6 M **Habitat:** Freshwater **Characteristics:** Monoecious; VU **Gene data:** atpB, atpB-rbcL IGS, rbcL (AB363927) **Other strain no.:** CH-82 **Reference:** 369
- 1591 **History:** < Amano, Kunihiko **Locality:** Lake Kasumigaura/Ibaraki/Japan **Isolator:** Ishimoto, Miwa **Identified by:** Sakayama, Hidetoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 20°C; 16-20µmol/m²/s; 6 M **Habitat:** Freshwater **Characteristics:** Monoecious; VU; Germinated from a buried oospore **Gene data:** atpB, atpB-rbcL IGS, rbcL (AB363928) **Other strain no.:** CH-88 **Reference:** 369
- 1592 **History:** < Amano, Kunihiko **Locality:** Lake Kasumigaura/Ibaraki/Japan **Identified by:** Sakayama, Hidetoshi **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 20°C; 16-20µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; VU; Germinated from a buried oospore **Gene data:** atpB, atpB-rbcL IGS, rbcL (AB363929) **Other strain no.:** CH-89 **Reference:** 369
- 1593 **History:** < Amano, Kunihiko **Locality:** Lake Kasumigaura/Ibaraki/Japan **Identified by:**

Sakayama, Hidetoshi **States**: Clonal; Non-axenic **Culture conditions**: mSWC-2; SWCN-2; 20°C; 16-20µmol/m²/s; 1 M **Habitat**: Freshwater **Characteristics**: Monoecious; VU; Germinated from a buried oospore **Gene data**: atpB, atpB-rbcL IGS, rbcL (AB363930) **Other strain no.**: CH-91 **Reference**: 369

- 1594 **History**: < Sakayama, Hidetoshi **Locality**: Tsuchiura, Ohiwata/Ibaraki/Japan (2004-07-11) **Isolator**: Ishimoto, Miwa **Identified by**: Sakayama, Hidetoshi (2005-04-18) **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: mSWC-2; SWCN-2; 20°C; 16-20µmol/m²/s; 6 M **Habitat**: Freshwater **Characteristics**: Monoecious; VU **Other strain no.**: CH-98
- 1604 **History**: < Watanabe, Makoto M. **Locality**: Hawaii/U.S.A. (1998-04-**) **Isolator**: Ishimoto, Miwa **Identified by**: Sakayama, Hidetoshi; Kato, Sho (2005-08-26) **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: mSWC-2; SWCN-2; 20°C; 16-20µmol/m²/s; 6 M **Habitat**: Freshwater **Characteristics**: Monoecious **Gene data**: atpB, atpB-rbcL IGS, rbcL (AB363931) **Other strain no.**: CH-33 **Reference**: 369
- 2500 **History**: < Ishimoto, Miwa **Locality**: Tokushima/Japan (2004-06-15) **Identified by**: Ishimoto, Miwa (2004-07-**) **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: mSWC-2; SWCN-2; 22°C; 16-20µmol/m²/s; 6 M **Habitat**: Freshwater **Characteristics**: Monoecious; CR+EN **Other strain no.**: CH-66
- 2661 **History**: < Ishimoto, Miwa **Locality**: Lake Kasumigaura/Ibaraki/Japan **Isolator**: Ishimoto, Miwa **Identified by**: Sakayama, Hidetoshi (2004-07-**) **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: mSWC-2; 22°C; 16-20µmol/m²/s; 6 M **Habitat**: Freshwater (Germling from Oospore) **Characteristics**: Monoecious; VU **Other strain no.**: CH-90

Chara globularis Thuillier

- 1595 **History**: < Sakayama, Hidetoshi **Locality**: Lake Tanne-to/Hokkaido/Japan (1999-09-02) **Identified by**: Sakayama, Hidetoshi (2006-**-**) **States**: Clonal; Non-axenic **Culture conditions**: mSWC-2; SWCN-1; SWCN-2; 17°C; 16-20µmol/m²/s; 2 M **Habitat**: Freshwater **Characteristics**: Monoecious; CR+EN **Other strain no.**: CH-106; S001
- 1597 **History**: < Nozaki, Hisayoshi **Locality**: Lake Tsuta-numa/Aomori/Japan (1998-08-05) **Identified by**: Nozaki, Hisayoshi **States**: Clonal; Non-axenic **Culture conditions**: mSWC-2; SWCN-1; SWCN-2; 17°C; 16-20µmol/m²/s; 2 M **Habitat**: Freshwater **Characteristics**: Monoecious; CR+EN **Other strain no.**: CH-35

Chara leptospora Sakayama

- 1599 **History**: < Sakayama, Hidetoshi **Locality**: Lake Ogawara/Aomori/Japan (1999-09-06) **Identified by**: Sakayama, Hidetoshi **States**: Clonal; Non-axenic **Culture conditions**: mSWC-2; SWCN-1; SWCN-2; 17°C; 16-20µmol/m²/s; 2 M **Habitat**: Freshwater **Characteristics**: Monoecious; CR+EN **Other strain no.**: CH-109; S024

Chara sp.

- 1602 **History**: < Arai, Shogo **Locality**: Ogimi/Okinawa/Japan (1997-01-13) **States**: Clonal; Non-axenic **Culture conditions**: mSWC-2; SWCN-2; 22°C; 16-20µmol/m²/s; 2 M **Habitat**: Freshwater **Other strain no.**: CH-19
- 1603 **History**: < Arai, Shogo **Locality**: Ogimi/Okinawa/Japan (1997-01-13) **States**: Clonal; Non-axenic **Culture conditions**: mSWC-2; SWCN-2; 22°C; 16-20µmol/m²/s; 2 M **Habitat**: Freshwater **Other strain no.**: CH-20
- 1605 **History**: < Inouye, Isao **Locality**: Imperial Palace/Tokyo/Japan (1998-12-08) **States**: Clonal; Non-axenic **Culture conditions**: mSWC-2; SWCN-2; 22°C; 16-20µmol/m²/s; 1 M **Habitat**: Freshwater **Other strain no.**: CH-39

Chara zeylanica Klein ex Willdenow

- 1601 **History**: < Ueno, Ryuhei **Locality**: Minamidaitho Isl./Okinawa/Japan (2000-02-11) **Identified by**: Sakayama, Hidetoshi (2005-**-**) **States**: Clonal; Non-axenic **Culture conditions**: mSWC-2; SWCN-2; 25°C; 16-20µmol/m²/s; 2 M **Habitat**: Freshwater **Characteristics**: Monoecious; CR+EN **Other strain no.**: CH-55

CHARACIOCHLORIS : Chlorophyceae***Characiochloris acuminata*** Lee et Bold

- 637 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 2095 **Locality:** E1 Tahin. Prov. Omo-Saber/Egypt **Isolator:** Hindak, F. **Identified by:** Lee, K. W.; Bold, H. C. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27µmol/m²/s; 2 M **Habitat:** Freshwater (Soil) **Characteristics:** Authentic strain **Gene data:** psaB (AB451196) **References:** 567, 609, 704

Characiochloris sasae Nozaki

- 567 **History:** < Nozaki, Hisayoshi **Locality:** Kawasaki/Kanagawa/Japan (1990-10-29) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27µmol/m²/s; 2 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Authentic strain; Aplanospore forming **Gene data:** atpB (AB084331); psaB (AB084376); rbcL (AB084338) **Other strain no.:** 91-0106-1 **References:** 567, 704, 740

- 638 **History:** < Nozaki, Hisayoshi **Locality:** Kawasaki, Saiwai-ku/Kanagawa/Japan (1990-10-29) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27µmol/m²/s; 2 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Aplanospore forming; Resting spore not forming; Endemic in Japan **Other strain no.:** 91-0106-6 **References:** 567, 704

CHARACIUM : Chlorophyceae***Characium angustum*** A.Braun

- 639 **History:** < Kasai, Fumie **Locality:** Kinu River/Tochigi/Japan (1987-08-16) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal **Culture conditions:** C; 15°C; 8-15µmol/m²/s; 4 M (15°C; 15-22µmol/m²/s) **Habitat:** Freshwater (River water) **Characteristics:** DNA sequencing indicates close relationship to *Lobocharamicum*. **Other strain no.:** AK-5-2 **References:** 567, 1018

Characium polymorphum Printz

- 436 **History:** < IAM **Other collection strain no.:** IAM C-340 **Locality:** Between Ghorepani and Billethadi/Nepal (1965-12-02) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10µmol/m²/s; 3 M (25 °C ; 70-80µmol/m²/s) **Habitat:** Freshwater (Pond sediment) **Other strain no.:** N-76-0 **References:** 235, 567 **Remarks:** Cryopreserved

CHATTONELLA : Raphidophyceae***Chattonella marina*** (Subrahmanyam) Y.Hara et Chihara var. ***antiqua*** (Hada) Demura et Kawachi

- 1 **History:** < Watanabe, Makoto M. **Locality:** Harima-Nada/Japan (1978-09-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **Formerly identified as:** Chattonella antiqua (Hada) Ono **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; ESM; 20 °C ; 32-40µmol/m²/s; 1M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** Ho-1 **References:** 65, 76, 115, 198, 245, 247, 251, 252, 253, 254, 255, 256, 283, 395, 429, 431, 485, 494, 592, 605, 634, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 672, 679, 1021, 1065, 1166, 1234, 1243 **Remarks:** Fragile species to transportation stresses
- 2 **History:** < Watanabe, Makoto M. **Locality:** Osaka Bay/Osaka/Japan (1982-09-**) **Isolator:** Yamochi, Susumu **Identified by:** Yamochi, Susumu **Formerly identified as:** Chattonella antiqua (Hada) Ono **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** f/2; ESM; 20°C; 32-40µmol/m²/s; 1M **Habitat:** Marine **Characteristics:** Red tide **Gene data:** CO1 (AB334445); ITS1-5.8S-ITS2 (AB334308); rbcL (AB334372) **Other strain no.:** OCH-a **References:** 64, 65, 198 **Remarks:** Fragile species to transportation stresses
- 83 **History:** < KAGAWA **Locality:** off Hiketa/Kagawa/Japan (1977-08-**) **Isolator:** Ono, Chitaru **Identified by:** Ono, Chitaru **Formerly identified as:** Chattonella antiqua (Hada) Ono **States:**

- Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** f/2; 20°C; 32-40µmol/m²/s; 1M **Habitat:** Marine **Characteristics:** Red tide **Gene data:** CO1 (AB334446); ITS1-5.8S-ITS2 (AB334309); rbcL (AB334373) **Other strain no.:** KGW-2 **References:** 65, 198, 1109 **Remarks:** Fragile species to transportation stresses
- 84 **History:** < KAGAWA **Locality:** off Hiketa/Kagawa/Japan (1972-**-**) **Isolator:** Okaichi, Tomotoshi **Identified by:** Okaichi, Tomotoshi **Formerly identified as:** Chattonella antiqua (Hada) Ono **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Gene data:** CO1 (AB334447); ITS1-5.8S-ITS2 (AB334310); rbcL (AB334374) **Other strain no.:** KGW-6 **References:** 65, 198 **Remarks:** Fragile species to transportation stresses
- 85 **History:** < KAGAWA **Locality:** Shodo Isl./Kagawa/Japan (1978-07-21) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **Formerly identified as:** Chattonella antiqua (Hada) Ono **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; ESM; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Gene data:** CO1 (AB334448); ITS1-5.8S-ITS2 (AB334311); rbcL (AB334375) **Other strain no.:** KGW-8-5 **References:** 65, 198, 199 **Remarks:** Fragile species to transportation stresses
- 86 **History:** < KAGAWA **Locality:** Uranouchi Bay/Kochi/Japan (1980-11-01) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **Formerly identified as:** Chattonella antiqua (Hada) Ono **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; ESM; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Other strain no.:** KGW-42-4 **References:** 65, 137, 198, 199, 1109 **Remarks:** Fragile species to transportation stresses
- 113 **History:** < KAGAWA **Locality:** Naoshima/Kagawa/Japan (1982-07-30) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **Formerly identified as:** Chattonella antiqua (Hada) Ono **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Gene data:** CO1 (AB334449); ITS1-5.8S-ITS2 (AB334312); rbcL (AB334376) **Other strain no.:** KGW-59-2 **References:** 22, 65, 198 **Remarks:** Fragile species to transportation stresses
- 114 **History:** < KAGAWA **Locality:** Harima-Nada/Japan (1983-08-06) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **Formerly identified as:** Chattonella antiqua (Hada) Ono **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Gene data:** CO1 (AB334450); ITS1-5.8S-ITS2 (AB334313); rbcL (AB334377) **Other strain no.:** KGW-74-8 **References:** 65, 198, 1217 **Remarks:** Fragile species to transportation stresses
- 161 **History:** < Takayama, Haruyoshi **Locality:** Hiroshima Bay/Hiroshima/Japan **Formerly identified as:** Chattonella antiqua (Hada) Ono **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Gene data:** CO1 (AB334451); ITS1-5.8S-ITS2 (AB334314); rbcL (AB334378) **Other strain no.:** Hiroshima-70 **References:** 65, 148, 149 **Remarks:** Fragile species to transportation stresses
- 558 **History:** < Honjo, Tsuneo **Locality:** Mikawa Bay/Aichi/Japan **Isolator:** Toriumi, Saburo **Identified by:** Toriumi, Saburo **Formerly identified as:** Chattonella antiqua (Hada) Ono **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **References:** 65, 1215 **Remarks:** Fragile species to transportation stresses
- Chattonella marina** (Subrahmanyam) Y.Hara et Chihara var. *marina*
- 3 **History:** < Watanabe, Makoto M. **Locality:** Osaka Bay/Osaka/Japan (1982-08-**) **Isolator:** Yamochi, Susumu **Identified by:** Yamochi, Susumu **Formerly identified as:** Chattonella marina (Subrahmanyam) Hara et Chihara **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** f/2; ESM; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Gene data:** 18S-ITS1-5.8S-ITS2-28S (AF137074); CO1 (AB334465); ITS1-5.8S-ITS2 (AB334328); rbcL (AB334392) **Other strain no.:** OCH-m **References:** 10, 65, 1064, 1065, 1109 **Remarks:** Fragile species to transportation stresses
- 14 **History:** < Watanabe, Makoto M. **Locality:** Harima-Nada/Japan (1983-02-**) **Isolator:** Watanabe,

- Makoto M. **Identified by:** Watanabe, Makoto M. **Formerly identified as:** Chattonella marina (Subrahmanyam) Hara et Chihara **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** f/2; ESM; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Characteristics:** Red tide **Gene data:** CO1 (AB334466); ITS1-5.8S-ITS2 (AB334329); rbcL (AB334393) **Other strain no.:** H-53-11 **References:** 65, 198, 1217 **Remarks:** Fragile species to transportation stresses
- 115 **History:** < KAGAWA **Locality:** Kinko Bay/Kagoshima/Japan (1978-06-14) **Isolator:** Aramaki, Takayuki; Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **Formerly identified as:** Chattonella marina (Subrahmanyam) Hara et Chihara **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; ESM; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** KGW-9-1 **References:** 65, 198 **Remarks:** Fragile species to transportation stresses
- 116 **History:** < KAGAWA **Locality:** Harima-Nada/Japan (1981-07-04) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **Formerly identified as:** Chattonella marina (Subrahmanyam) Hara et Chihara **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; ESM; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** KGW-46-7 **References:** 65, 198 **Remarks:** Fragile species to transportation stresses
- 118 **History:** < KAGAWA **Locality:** Harima-Nada/Japan (1983-07-29) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **Formerly identified as:** Chattonella marina (Subrahmanyam) Hara et Chihara **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; ESM; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Gene data:** CO1 (AB334468); ITS1-5.8S-ITS2 (AB334331); rbcL (AB334395) **Other strain no.:** KGW-75-2 **References:** 65, 137, 149, 198, 199, 491, 492, 493, 494, 495, 878, 1109 **Remarks:** Fragile species to transportation stresses
- 121 **History:** < Aramaki, Takayuki **Locality:** Kagoshima Bay/Kagoshima/Japan (1982-**-**) **Isolator:** Aramaki, Takayuki **Identified by:** Aramaki, Takayuki **Formerly identified as:** Chattonella marina (Subrahmanyam) Hara et Chihara **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; 20 °C ; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** KGO-57-1 **References:** 65, 198, 199, 335, 654, 1109 **Remarks:** Fragile species to transportation stresses
- 557 **History:** < Honjo, Tsuneo **Locality:** Hiroshima Bay/Hiroshima/Japan (1970-09-**) **Isolator:** Takayama, Haruyoshi **Identified by:** Kawachi, Masanobu (Reidentify) (2009-03-04) **Formerly identified as:** Chattonella marina (Subrahmanyam) Hara et Chihara; Chattonella antiqua (Hada) Ono **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Gene data:** CO1 (AB334469); ITS1-5.8S-ITS2 (AB334332); rbcL (AB334396) **Reference:** 65 **Remarks:** Fragile species to transportation stresses
- 559 **History:** < Honjo, Tsuneo **Locality:** Maizuru Bay/Kyoto/Japan (1975-10-04) **Isolator:** Takayama, Haruyoshi **Identified by:** Yoshimatsu, Sadaaki **Formerly identified as:** Chattonella marina (Subrahmanyam) Hara et Chihara **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; 20 °C ; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Reference:** 65 **Remarks:** Fragile species to transportation stresses
- Chattonella marina* (Subrahmanyam) Y.Hara et Chihara var. *ovata* (Y.Hara et Chihara) Demura et Kawachi
- 603 **History:** < Sawaguchi, Tomohiro **Locality:** Harima-nada/Japan (1984-04-23) **Identified by:** Nozaki, Hisayoshi **Formerly identified as:** Chattonella ovata Hara et Chihara **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; ESM; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Sediment) **Gene data:** 18S rRNA (AB217628); 18S-ITS1-5.8S-ITS2 (AB217650); 28S rRNA (AF210738); 28S rRNA (AB217640); CO1 (AB334482); ITS1-5.8S-ITS2 (AB334345); psaA (AB36795); rbcL (AB334409); tufA (AB367951) **References:** 65, 137, 147, 149, 335 **Remarks:** Fragile species to transportation stresses
- 671 **History:** < KAGAWA < Yoshimatsu, Sadaaki **Locality:** Harima-nada/Japan (1982-07-30) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **Formerly identified as:** Chattonella ovata Hara et Chihara **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Gene**

- data:** CO1 (AB334483); rbcL (AB334410) **Reference:** 65 **Remarks:** Fragile species to transportation stresses
- 849 History:** < Hara, Yoshiaki **Locality:** Japan **Formerly identified as:** Chattonella ovata Hara et Chihara **States:** Unialgal; Non-axenic **Culture conditions:** f/2; ESM; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Gene data:** CO1 (AB334484); rbcL (AB334411) **References:** 65, 149 **Remarks:** Fragile species to transportation stresses
- 1872 History:** < Aramaki, Takayuki **Locality:** Kagoshima Bay/Kagoshima/Japan (1982-**-**) **Isolator:** Aramaki, Takayuki **Identified by:** Demura, Mikihide (2007-08-01) **Formerly identified as:** Chattonella ovata Hara et Chihara **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** KGO-57-2 **Reference:** 65 **Remarks:** Fragile species to transportation stresses
- 1873 History:** < KAGAWA **Locality:** Naoshima Isls./Kagawa/Japan (1982-07-30) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Demura, Mikihide (2007-08-01) **Formerly identified as:** Chattonella ovata Hara et Chihara **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; ESM; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** KGW-60-3 **Reference:** 65 **Remarks:** Fragile species to transportation stresses

Chattonella subsalsa Biecheler

- 2633 History:** < CCMP (2010) **Other collection strain no.:** CCMP 217 **Locality:** Gulf of Mexico **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Remarks:** Fragile species to transportation stresses
- 2634 History:** < CCMP (2010) **Other collection strain no.:** CCMP 2191 **Locality:** Indian River Bay/Delaware/U.S.A. (2001-08-13) **Isolator:** Zhang, Y. **Identified by:** Zhang, Y.; Coyne, K. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Remarks:** Fragile species to transportation stresses

CHLAMYDOMONAS : Chlorophyceae

Chlamydomonas appplanata Pringsheim

- 2202 History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-214; SAG 2.72; UTEX 969 **Locality:** Williamson County/Texas/U.S.A. **Isolator:** Deason, T. R. **Formerly identified as:** Chlamydomonas aggregata Deason et Bold **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Other strain no.:** Deason T-1-12 **Reference:** 38
- 2204 History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-218; CCAP 11/2; SAG 6.72; UTEX 230 **Locality:** Franzensbad/Czechoslovakia **Isolator:** Pringsheim, E. G. **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat:** Freshwater (Lake mud) **Reference:** 38
- 2206 History:** < IAM (2007) < BIU (UTEX) **Other collection strain no.:** IAM C-237; ATCC 30455; CCAP 11/9; SAG 11-9; UTEX 225 **Locality:** Botanic Garden, Prague Univ./Czechoslovakia **Isolator:** Lucksch, I. **Formerly identified as:** Chlamydomonas humicola Lucksch **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Reference:** 484

Chlamydomonas asymmetrica Korshikov

- 2207 History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-219; CCAP 11/41; SAG 11-41; UTEX 450 **Locality:** Yale/Connecticut/U.S.A. **Isolator:** Lewin, Ralph A. **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat:** Terrestrial
- 2208 History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-234; ATCC 30586; CCAP 11/7; SAG 11-7; UTEX 227; Rodhe 1635 **Locality:** Siggeforasjon/Sweden **Isolator:** Rodhe, W. **Formerly identified as:** Chlamydomonas gloeopara Rodhe et Skuja **States:** Unialgal;

Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M

Chlamydomonas debaryana Goroschankin

- 2212 History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-549 (=C-1); Tsubo I16; UTEX 618; CCAP 11/59; SAG 4.72 **Isolator:** Tsubo, Yoshihiro **Formerly identified as:** Chlamydomonas angulosa Dill **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **References:** 628, 735, 863, 864

Chlamydomonas debaryana Goroschankin var. *cristata* Ettl

- 884 History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** CCAP 11/74; UTEX 1344 **Locality:** Nordmähren/Czech **Isolator:** Ettl, H. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 15-22µmol/m²/s; 2 M **Habitat:** (Soil) **Characteristics:** Authentic strain **Gene data:** atpB (AB014034); psaA (AB044417); psaA (AB044418); psaB (AB044469); psbC (AB044527); rbcL (D86838) **References:** 716, 733, 738

Chlamydomonas eustigma Ettl

- 2499 History:** < Higuchi, Sumio **Locality:** Matsukawa River/Nagano/Japan (1992-08-**) **Isolator:** Higuchi, Sumio **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic[2011 Aug] **Culture conditions:** M-Allen (A2); 20°C; 18-23µmol/m²/s; 2 M **Habitat:** Freshwater (Microfilm) **Characteristics:** Acidophilic

Chlamydomonas fasciata Ettl

- 437 History:** < Suda, Shoichiro **Locality:** Tsukuba/Ibaraki/Japan (1984-05-08) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 22-32µmol/m²/s; 2 M **Habitat:** Freshwater (Paddy soil) **Other strain no.:** H-3-4-2 **References:** 204, 567, 1088

Chlamydomonas gerloffii Ettl

- 2215 History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-554 (=C-233); CCAP 11/72; SAG 20.72; UTEX 1348 **Locality:** Schonhengst/Czechoslovakia **Isolator:** Ettl, H. **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat:** Freshwater (Pond water) **Other strain no.:** Ettl 136

Chlamydomonas globosa J.Snow

- 2462 History:** < Nakada, Takashi **Locality:** Yamagata/Japan (2008-05-10) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2009-06-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Soil) **Other strain no.:** TkS0803C2 **Reference:** 613

Chlamydomonas inflexa Pringsheim

- 2216 History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-253; SAG 24.72; UTEX 727 **Isolator:** Lewin, Ralph A. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Other strain no.:** R.A.Lewin DD1/72

Chlamydomonas kuwadae Gerloff

- 968 History:** < Nozaki, Hisayoshi **Locality:** Lake Nojiri (depth 0-10m)/Nagano/Japan (1992-05-13) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 10°C; 15-20µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Gene data:** 18S rRNA (AB451190); atpB (AB084318); psaB (AB084356); rbcL (AB084334) **Other strain no.:** 92-514-H-13 **References:** 609, 740

- 1021 History:** < Moriya, Mayumi **Locality:** Osaka Bay/Hyogo/Japan (2000-11-**) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **Formerly identified as:** Chlamydomonas coccoidea Butcher **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 15-22µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** #95

Chlamydomonas media Klebs

Syn. *Chlamydomonas media* var. *eustigma* Gerloff

- 2743 History:** < Nakada, Takashi **Locality:** Ibaraki/Japan (2004-07-06) **Isolator:** Nakada, Takashi

Identified by: Nakada, Takashi (2011-11-**) **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 15-27µmol/m²/s **Habitat:** Freshwater (Sediment) **Characteristics:** Strain for epitype designation **Gene data:** 18S rRNA (AB694003) **Other strain no.:** HcCl-5-3 **Reference:** 612

Chlamydomonas mexicana Lewin

2218 History: < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-555 (=C-257); UTEX 730; SAG 11-60b **Isolator:** Lewin, Ralph A. **Identified by:** Lewin, Ralph A. **States:** Unialgal; Clonal; Axenic [2012 Feb] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M

Chlamydomonas moewusii Gerloff

2219 History: < IAM (2007) < BIU (UTEX) **Other collection strain no.:** IAM C-258; CCAP 11/16g; UTEX 96; SAG 11-16G; ATCC 30418; UTCC 83; CGC 56 **Isolator:** Provasoli, L. **States:** Unialgal; Clonal; Axenic [2012 Feb] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **References:** 38, 128, 1159

2220 History: < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-259; CCAP 11/16f; UTEX 97; SAG 11-16F; ATCC 30588; CGC 57 **Isolator:** Provasoli, L. **States:** Unialgal; Clonal; Axenic [2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M

2241 History: < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-281; CCAP 11/26; (BIU 211) **Isolator:** Pringsheim, E. G. **Formerly identified as:** Chlamydomonas simplex Pascher **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat:** Freshwater (Freshwater)

2576 History: < IAM (2007) < Tsubo, Yoshihiro (Kobe Univ.; 1967) **Other collection strain no.:** IAM C-5 **Isolator:** Tsubo, Yoshihiro **States:** Unialgal; Clonal; Axenic [2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Characteristics:** Mating type(+) **Other strain no.:** Tsubo L

Chlamydomonas moewusii Gerloff var. *rotunda* Tsubo

2222 History: < IAM (2007) < Tsubo, Yoshihiro **Other collection strain no.:** IAM C-19 **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Other strain no.:** Tsubo 2475 **Reference:** 1080

2223 History: < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-556 (=C-16); CCAP 11/64A; UTEX 576; SAG 11-61a **Locality:** Sasayama/Hyogo/Japan **Isolator:** Tsubo, Yoshihiro **Identified by:** Tsubo, Yoshihiro **States:** Unialgal; Clonal; Axenic [2012 Feb] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Mating type(+) **Other strain no.:** Tsubo 24 (+) **Reference:** 1190

2577 History: < IAM (2007) < Tsubo, Yoshihiro (Kobe Univ.) **Other collection strain no.:** IAM C-18 **States:** Unialgal; Clonal; Axenic [2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Other strain no.:** Tsubo 2470

2578 History: < IAM (2007) < Tsubo, Yoshihiro (Kobe Univ.) **Other collection strain no.:** IAM C-26 **States:** Unialgal; Clonal; Axenic [2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Other strain no.:** Tsubo 24122 **Reference:** 1080

Chlamydomonas monadina Stein var. *monadina*

438 History: < Suda, Shoichiro **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-07-22) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 22-32µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Other strain no.:** Kas-7 **Reference:** 567

Chlamydomonas nasuta Korshikov

2225 History: < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-550 (=C-225); UTEX 451 **Locality:** Edgewood Park/Connecticut/U.S.A. **Isolator:** Lewin, Ralph A. **Formerly identified as:** Chlamydomonas conferta Korshikov **States:** Unialgal; Clonal; Axenic [2012 Feb] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat:** (Soil)

Chlamydomonas neoplanocconvexa (Iyengar) Nakada

Syn. *Chlamydomonas planoconvexa* Iyengar non Lund

- 2570 History:** < Nakada, Takashi **Locality:** Tokyo/Japan (2004-08-08) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2010-11-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Sediment) **Characteristics:** Epitype **Gene data:** 18S rRNA (AB602849); psaB (AB602851); rbcL (AB602850) **Other strain no.:** IiS0801D6 **Reference:** 616

Chlamydomonas noctigama Korshikov

- 1048 History:** < Nozaki, Hisayoshi **Locality:** Neuglobsow/Brandenburg/Germany (2001-08-14) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27µmol/m²/s; 2 M **Habitat:** Freshwater **Gene data:** atpB (AB101502); psaB (AB101513); rbcL (AB101506); rbcL (AB101507) **Other strain no.:** 2001-814-C10
- 2213 History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-228; CCAP 11/4; UTEX 228; SAG 23.87; ATCC 30594; CGC C-1812 **Locality:** Dorfteich, Hirschberg/Czechoslovakia **Isolator:** Mainx, F. **Formerly identified as:** *Chlamydomonas dorsoventralis* Pascher **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **References:** 38, 484, 735
- 2228 History:** < IAM (2007) < BIU (UTEX) **Other collection strain no.:** IAM C-270; SAG 40.72; UTEX 1339 **Locality:** Czechoslovakia **Isolator:** Ettl, H. **Formerly identified as:** *Chlamydomonas pinicola* Ettl **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat:** Soil (Soil) **Other strain no.:** Ettl 108
- 2229 History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-557 (=C-262); ATCC 30629; CCAP 11/17; SAG 33.72; UTEX 220 **Locality:** Czechoslovakia **Isolator:** Pringsheim, E. G. **Formerly identified as:** *Chlamydomonas monoica* Streblow **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat:** (Freshwater) **References:** 484, 1116
- 2579 History:** < IAM (2007) < BIU (UTEX; 1961) **Other collection strain no.:** IAM C-264; SAG 35.72; UTEX 114 **Isolator:** Starr, R. C. **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Reference:** 1159

Chlamydomonas orbicularis Pringsheim

- 2230 History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-559 (=C-266); SAG 11-19; UTEX 218; CGC CC-1739; CCAP 11/19 **Locality:** near Celakovice/Czechoslovakia **Isolator:** Pringsheim, E. G. **States:** Unialgal; Clonal; Axenic[2012 Mar] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat:** Freshwater (River sand)

Chlamydomonas parkae Ettl

- 440 History:** < Suda, Shoichiro **Locality:** Izumi Bay/Nagasaki/Japan (1986-03-12) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 22-32µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Gene data:** rbcL (AB127988) **Other strain no.:** I-29 **References:** 396, 567, 889, 916

Chlamydomonas perpusilla (Korshikov) Gerloff var. *perpusilla*

Syn. *Chlamydomonas minima* Korshikov

- 1848 History:** < Nakada, Takashi **Locality:** Sakata-ga-ike Pond/Chiba/Japan (2003-07-23) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2006-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond sediment) **Other strain no.:** SkCl-3 **Reference:** 608
- 1849 History:** < Nakada, Takashi **Locality:** Sakata-ga-ike Pond/Chiba/Japan (2003-07-23) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2006-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond sediment) **Gene data:** psaB (AB451199) **Other strain no.:** SkCr-10 **References:** 608, 609

Chlamydomonas proteus Pringsheim

- 2231 History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-560 (=C-271); ATCC 30452; CCAP 11/21; SAG 41.72; UTEX 216 **Locality:** near Hirschberg/Czechoslovakia **Isolator:** Pringsheim, E. G. **Identified by:** Pringsheim, E. G. **States:** Unialgal; Clonal; Axenic[2012 Mar] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat:** Freshwater (Freshwater)

Chlamydomonas pseudomacrostigma L.S. Péterfi ex H.Ettl

Syn. *Chlamydomonas macroplastida* J.W.G. Lund f. *macrostigma* Bourrelly; *Chlamydomonas monadina* F.Stein var. *charkoviensis* Korshikov

- 2744 History:** < Nakada, Takashi **Locality:** Yamagata/Japan (2008-05-29) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2011-11-**) **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 15-27µmol/m²/s **Habitat:** Freshwater (Sediment) **Characteristics:** Strain for epitype designation **Gene data:** 18S rRNA (AB694004) **Other strain no.:** TkS0811B3 **Reference:** 612

Chlamydomonas pulsatilla Wollenweber

- 122 History:** < IAM (1983) **Other collection strain no.:** IAM C-385 (=C-561) **Locality:** Muroran/Hokkaido/Japan (1966-05-12) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** P35; 20°C; 4-10µmol/m²/s; 2 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Lake water) **Gene data:** psaB (AB451200) **Other strain no.:** MKF-50 **References:** 234, 235, 293, 567, 609, 1159, 1187

Chlamydomonas pulvinata Vischer

- 2233 History:** < IAM (2007) < BIU (UTEX) **Other collection strain no.:** IAM C-276; CCAP 11/25; SAG 45.72; UTEX 212 **Locality:** Basel/Switzerland **Isolator:** Vischer, W. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat:** Freshwater (Freshwater)

Chlamydomonas pumilio Ettl var. *pumilio*

- 1850 History:** < Nakada, Takashi **Locality:** Arisugawa-no-miya Memorial Park/Tokyo/Japan (2003-04-28) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2006-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Gene data:** psaB (AB451201) **Other strain no.:** ArCp-7 **References:** 608, 609

Chlamydomonas rapa Ettl

- 2234 History:** < IAM (2007) **Other collection strain no.:** IAM C-279 **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M

Chlamydomonas reinhardtii Dangeard

- 2235 History:** < IAM (2007) < Tsubo, Yoshihiro (1959) < Sager (1954) < Smith (1953) **Other collection strain no.:** IAM C-9 **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Characteristics:** Mating type(-); Crosses with NIES-2239 (IAM C-562) **Gene data:** Amt protein mRNA(putative) (AF509497); CAH1 (D90206); CAH1(5'-upstream region) (AB026126); CAH2 (X54488); CrDES (AB239769); EST information (<http://est.kazusa.or.jp/en/plant/chlamy/EST/index.html>); GCS1 mRNA (AB206813); MMP1 (AB058411); MMP1 mRNA (AB058413); MMP2 (AB058412); MMP2 mRNA (AB058414); MMP3 mRNA (AB108850); mRNA for plastid DNA recombination (AB048829); NSG1 mRNA (AB167472); NSG11 mRNA (AB167476); NSG13 mRNA (AB167477); NSG17 mRNA (AB167478); NSG6 mRNA (AB167474); NSG7 mRNA (AB167475); SIG1 mRNA (AB049220); Total genome information (<http://chlamy.pmb.lif.kyoto-u.ac.jp/chlamybase>) **Other strain no.:** Tsubo R (-) **References:** 1, 5, 23, 24, 25, 28, 41, 68, 69, 70, 77, 114, 121, 122, 332, 341, 361, 449, 450, 452, 453, 517, 518, 519, 520, 522, 526, 558, 821, 822, 823, 827, 1011, 1072, 1073, 1094, 1097, 1100, 1101, 1159, 1193, 1196, 1232, 1237, 1265

- 2236 History:** < IAM (2007) < Kuchitsu, Kazuyuki (1991) < Mihara, S. < Matsuda, Y. < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-239; CCAP 11/32A; SAG 11-32b; UTEX 90; NIBB 4014; CGC CC-1010; CGC CC-409 **Locality:** near Amherst/Massachusetts/U.S.A. **Isolator:**

- Smith, G. M. **States:** Unialgal; Clonal; Axenic[2012 Mar] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat:** Terrestrial (Soil) **Characteristics:** Mating type(+) **Other strain no.:** 137c mt **References:** 503, 948, 1082
- 2237 History:** < IAM (2007) < Mihara, S. (1991) **Other collection strain no.:** IAM C-540 **States:** Unialgal; Clonal; Axenic[2012 Mar] **Culture conditions:** TAP (agar); 20°C; 8-15µmol/m²/s; 3 M **Characteristics:** Cell wall less mutant of NIES-2238 (IAM C-541) **Other strain no.:** cw-15 strain **Reference:** 397
- 2238 History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-541 (=C-238); CCAP 11/32B; SAG 11-32a; UTEX 89; NIBB 4013; UTCC 84; CGC CC-1009 **Locality:** near Amherst/Massachusetts/U.S.A. **Isolator:** Smith, G. M. **States:** Unialgal; Clonal; Axenic[2012 Mar] **Culture conditions:** TAP (agar); 20 °C ; 8-15µmol/m²/s; 3 M **Habitat:** Terrestrial (Soil) **Characteristics:** Mating type(−) **Other strain no.:** 137c mt[−] **References:** 397, 795, 863, 864, 893, 894, 974, 1063
- 2239 History:** < IAM (2007) < Tsubo, Yoshihiro (1996) < Sager (1954) < Smith (1953) **Other collection strain no.:** IAM C-562 (=C-8) **States:** Unialgal; Clonal; Axenic[2012 Mar] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat:** (Soil) **Characteristics:** Mating type(+); Crosses with NIES-2235 (IAM C-9) **Other strain no.:** Tsubo R (+) **References:** 219, 1159
- 2463 History:** < Nakada, Takashi **Locality:** Kagoshima/Japan (2006-03-26) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2009-06-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Soil) **Characteristics:** Heterothallic; Isogamy; Mating type(+) **Other strain no.:** KkS0801B1 **Reference:** 613
- 2464 History:** < Nakada, Takashi **Locality:** Kagoshima/Japan (2006-03-26) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2009-06-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Soil) **Characteristics:** Heterothallic; Isogamy; Mating type(−) **Other strain no.:** KkS0801D2 **Reference:** 613
- Chlamydomonas* sp.
- 1022 History:** < Moriya, Mayumi **Locality:** Mitsu Bay/Hiroshima/Japan (2001-03-**) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **Formerly identified as:** Chlamydomonas parkeae Ettl **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20 °C ; 15-22µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** #97
- 1733 History:** < Sato, Mayumi **Locality:** Miyako Isl./Okinawa/Japan (2002-07-**) **Isolator:** Sato, Mayumi **Identified by:** Sato, Mayumi (2005-08-**) **Formerly identified as:** Chlamydomonas parkeae Ettl **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20 °C ; 18-23µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Other strain no.:** M-77
- 2211 History:** < IAM (2007) < BIU (UTEX) **Other collection strain no.:** IAM C-215; CCAP 11/1; SAG 11-1; UTEX 231 **Locality:** near Grosssteich, Hirschberg/Czechoslovakia **Isolator:** Mainx, F. **Formerly identified as:** Chlamydomonas debaryana Goroschankin; Chlamydomonas agloformis Pascher **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat:** Freshwater (Pool water) **Reference:** 38
- 2314 History:** < Suda, Shoichiro **Locality:** Tsuchiura/Ibaraki/Japan (1983-07-22) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 22-32µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** SIS-ch
- 2315 History:** < Suda, Shoichiro **Locality:** Tsukuba/Ibaraki/Japan (1984-05-04) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 22-32µmol/m²/s; 2 M **Habitat:** Freshwater (Paddy soil) **Other strain no.:** H-3-1
- 2316 History:** < Suda, Shoichiro **Locality:** Osaka Bay/Osaka/Japan (1982-08-03) **Isolator:** Watanabe, Makoto M. **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** OChla

- 2317 History:** < Suda, Shoichiro **Locality:** Kazo/Saitama/Japan (1984-06-10) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 22-32µmol/m²/s; 3 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Mating type(-) **Other strain no.:** KZ-5-8
- 2318 History:** < Suda, Shoichiro **Locality:** Kazo/Saitama/Japan (1984-06-10) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 22-32µmol/m²/s; 3 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Mating type(+) **Other strain no.:** KZ-5-17
- 2319 History:** < Suda, Shoichiro **Locality:** Tsukuba/Ibaraki/Japan (1954-05-08) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 22-32µmol/m²/s; 2 M **Habitat:** Freshwater (Paddy soil) **Other strain no.:** H-3-6
- 2320 History:** < Suda, Shoichiro **Locality:** Tsukuba/Ibaraki/Japan (1985-11-05) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** w-14-5
- 2321 History:** < Suda, Shoichiro **Locality:** Tsukuba/Ibaraki/Japan (1985-11-05) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** w-30
- 2322 History:** < Suda, Shoichiro **Locality:** Tsukuba/Ibaraki/Japan (1985-11-05) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** w-36
- 2323 History:** < Suda, Shoichiro **Locality:** Shimoda/Shizuoka/Japan (1985-05-22) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 22-32µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Other strain no.:** Sa-38
- 2324 History:** < Sawaguchi, Tomohiro **Locality:** Iriomote Isl./Okinawa/Japan (1986-01-23) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** STP; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** IC-9

Chlamydomonas sphaeroides Gerloff

- 2242 History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-255; CCAP 11/14; UTEX 221; SAG 25.72; CGC CC-1811 **Isolator:** Pringsheim, E. G. **Formerly identified as:** Chlamydomonas iyengari Mitra **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M

Chlamydomonas subangulosa Fritsch et John

- 2243 History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-563 (=C-285); CCAP 11/28; SAG 57.72; UTEX 209 **Locality:** England/U.K. **Isolator:** Pringsheim, E. G. **States:** Unialgal; Clonal; Axenic[2012 Mar] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat:** (Soil)

Chlamydomonas tetragama (Bohlin) Ettl

- 446 History:** < Suda, Shoichiro **Locality:** Tsuchiura/Ibaraki/Japan (1985-04-13) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **Formerly identified as:** Chlorogonium metamorphum Skuja **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 22-32µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Characteristics:** Authentic (Neotype) strain **Gene data:** atpB (AB084319); psaB (AB084357); rbcL (AJ001880) **Other strain no.:** 413D4-4 **References:** 567, 711, 737, 740, 1110

Chlamydomonas typica Deason et Bold

- 2246 History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-565 (=C-290); SAG 61.72; UTEX 971; CGC CC-1807 **Locality:** Williamson County/Texas/U.S.A. **Isolator:** Deason, T. R. **States:** Unialgal; Clonal; Axenic[2012 Mar] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat:** (Soil) **Other strain no.:** Deason T-2-11

Chlamydomonas ulvaensis Lewin

- 2247 History:** < IAM < UTEX (1996) **Other collection strain no.:** IAM C-566 (=C-291); CCAP 11/58; Lewin DD1/27; SAG 62.72; UTEX 724 **Locality:** Isle of Ulva /Scotland/U.K. **Isolator:** Lewin, Ralph A. **States:** Unialgal; Clonal; Axenic[2012 Mar] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat:** Terrestrial (Pasture plant)

Chlamydomonas zebra Korshikov ex Pascher

- 2248 History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-221; SAG 8.72; UTEX 229; CCAP 11/3 **Isolator:** Brannon, M. A. **Formerly identified as:** Chlamydomonas brannonii Pringsheim **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Other strain no.:** Brannon5

CHLORARACHNION : Chlorarachniophyceae

Chlorarachnion reptans Geitler

- 624 History:** < CCAP **Other collection strain no.:** CCAP 815/1 **Locality:** Puerto Penasco/Mexico **Isolator:** Norris, Richard E. **States:** Unialgal **Culture conditions:** ESM2; 20°C; 32-40µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **References:** 125, 1014

Chlorarachnion sp.

- 1408 History:** < TKB **Locality:** Amami Isl., Ayamaru/Kagoshima/Japan (2000-06-**) **Isolator:** Yoshida, Masaki **Identified by:** Yoshida, Masaki (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mMIR; MNK; 20°C; 25-40µmol/m²/s; 6 M **Habitat:** Marine (Sand) **Characteristics:** Mixotrophic; Benthic **Other strain no.:** TKB-002 (ym-02)

CHLORELLA : Trebouxiophyceae

'Chlorella ellipsoidea' Gerneck

- 2150 History:** < IAM (2007) < UTEX (1989) **Other collection strain no.:** IAM C-542 (=C-87); ATCC 30404; CCAP 211/1A; SAG 211-1a; UTEX 20 **Isolator:** Pringsheim, E. G. **Identified by:** Pringsheim, E. G.; Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488583) **References:** 385, 437, 1022 **Remarks:** Cryopreserved

'Chlorella' saccharophila (Krüger) Migula

- 640 History:** < Kasai, Fumie **Locality:** Otarunai River/Hokkaido/Japan (1987-07-02) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie; Confirmed at NIES by DNA sequencing **States:** Unialgal **Culture conditions:** C; 10°C; 6-12µmol/m²/s; 6 M (10°C; 10-15µmol/m²/s) **Habitat:** Freshwater (River water) **Gene data:** 18S rRNA (AB488790) **Other strain no.:** Tst-8-2 **References:** 567, 1018 **Remarks:** Cryopreserved

- 2352 History:** < IAM (2007) < Safferman, R. S. **Other collection strain no.:** IAM C-183; SEC 95 **Identified by:** Kessler, E.; Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488791) **Reference:** 1212 **Remarks:** Cryopreserved

Chlorella sorokiniana Shihira et Krauss

- 2167 History:** < IAM (2007) < Yakult < IAM < Watanabe, Atsushi **Other collection strain no.:** IAM C-43 **Isolator:** Watanabe, Atsushi **Identified by:** Kessler, E.; Confirmed at NIES by DNA sequencing (1994) **Formerly identified as:** Chlorella vulgaris Beijerinck **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488789) **Remarks:** Cryopreserved

- 2168 History:** < IAM (2007) < Murano, Fumio **Other collection strain no.:** IAM C-133 **Isolator:** Murano, Fumio **Identified by:** Fukushima, Hiroshi; Kessler, E.; Confirmed at NIES by DNA sequencing (1993) **Formerly identified as:** Chlorella vulgaris Beijerinck **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488572) **Other strain no.:** Murano (407)U-145 **References:** 71, 794, 1212 **Remarks:** Cryopreserved
- 2169 History:** < IAM (2007) < Meyers, Jack **Other collection strain no.:** IAM C-212; ATCC 22521; CAUP H1957; CCAP 211/8k; SAG 211-8K; UTEX 1230 **Locality:** Texas/U.S.A. **Isolator:** Sorokin, C. **Identified by:** Kessler, E.; Confirmed at NIES by DNA sequencing (1993) **Formerly identified as:** Chlorella pyrenoidosa Chick **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB080307); 18S rRNA (AB488573); Actin (AB080311) **References:** 38, 385, 496, 795, 1224 **Remarks:** Cryopreserved

Chlorella sp.

- 2171 History:** < IAM (2007) < Murano, Fumio **Other collection strain no.:** IAM C-135 **Locality:** Botanical garden, Sendai/Miyagi/Japan **Isolator:** Murano, Fumio **Identified by:** Fukushima, Hiroshi; Kessler, E.; Re-identified at NIES by DNA sequencing (1993) **Formerly identified as:** Chlorella vulgaris Beijerinck **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488574) **Other strain no.:** Kiyohara U-140 **References:** 190, 1212 **Remarks:** Cryopreserved
- 2330 History:** < Watanabe, Yoshitomo **Locality:** Lake Kasumigaura/Ibaraki/Japan (1991-04-22) **Isolator:** Watanabe, Yoshitomo **Identified by:** Watanabe, Yoshitomo **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Pond sediment) **Other strain no.:** HA-1 **Remarks:** Cryopreserved

Chlorella vulgaris Beijerinck

- 1269 History:** < Moriya, Mayumi **Locality:** Banzu Tidal Flat/Chiba/Japan (2002-05-14) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi; Re-identified at NIES by DNA sequencing **Formerly identified as:** Chlorella sp. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** (Tidal flat water) **Gene data:** 18S rRNA (AB488579) **Other strain no.:** M-56 **Remarks:** Cryopreserved
- 2170 History:** < IAM (2007) < Tokugawa Institute for Biological Research **Other collection strain no.:** IAM C-27 **Locality:** Sendai/Miyagi/Japan **Identified by:** Takeda, H.; Kessler, E.; Confirmed at NIES by DNA sequencing (1991) **Formerly identified as:** Chlorella ellipsoidea Gerneck **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Gene data:** 16S rRNA (AF350259); 16S rRNA (AF350260); 16S rRNA (AJ242748); 16S rRNA (AJ242753); 18S rRNA (AB178085); 18S rRNA (AJ242757); 18S rRNA (AB488580); CvFAD2 mRNA (AB075526); CvFAD3 mRNA (AB075527); G6PDH mRNA (AB085846); HiC12 mRNA (AB035642); HiC6 mRNA (U38231); Plastid DNA (AB001684) **Other strain no.:** Tamiya strain **References:** 7, 12, 15, 16, 93, 120, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 171, 172, 174, 175, 176, 177, 178, 179, 180, 193, 194, 195, 200, 201, 202, 209, 260, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 329, 330, 342, 343, 344, 345, 346, 373, 409, 498, 499, 504, 516, 525, 528, 529, 530, 531, 532, 533, 534, 536, 538, 542, 543, 544, 545, 546, 548, 550, 551, 552, 555, 556, 560, 570, 571, 667, 673, 674, 683, 752, 753, 754, 755, 761, 762, 763, 787, 810, 859, 860, 861, 862, 887, 888, 908, 942, 947, 966, 983, 996, 1001, 1010, 1013, 1022, 1023, 1024, 1025, 1026, 1027, 1028, 1029, 1030, 1037, 1038, 1039, 1040, 1041, 1042, 1043, 1044, 1045, 1046, 1047, 1048, 1049, 1050, 1051, 1052, 1094, 1101, 1114, 1205, 1211 **Remarks:** Cryopreserved
- 2172 History:** < IAM < CCAP (Butcher, R. W.) **Other collection strain no.:** IAM C-176; CCAP 211/21A or B (?) **Isolator:** George, E. A. **Identified by:** Kessler, E.; Confirmed at NIES by DNA sequencing (1993) **Formerly identified as:** Chlorella ovalis Butcher (before 1993) **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488581) **Remarks:** Cryopreserved
- 2173 History:** < IAM (2007) < Tsuzuki, Mikio (1988) < Avramova, S. T. (1982) < probably Semenenko **Other collection strain no.:** IAM C-536; IPPAS C-3 **States:** Unialgal; Clonal; Axenic [2012 Nov]

Culture conditions: C (agar); 20°C; 8-15 μ mol/m²/s; 3 M **Gene data:** 18S rRNA (AB080308); Actin-1 (AB080312); Actin-2 (AB080313) **References:** 5, 41, 548, 559, 560, 561, 1097, 1101, 1224 **Remarks:** Cryopreserved

- 2573 History:** < IAM (2007) < Safferman, R.S. (Indiana Univ.) **Other collection strain no.:** IAM C-182; SEC 121 **Identified by:** Kessler, E.; Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Axenic[2008 Dec] **Culture conditions:** C (agar); 20°C; 8-15 μ mol/m²/s; 3 M **Gene data:** 18S rRNA (AB488582) **Remarks:** Cryopreserved

Chlorella vulgaris Beijerinck var. *vulgaris*

- 227 History:** < IAM (1983) **Other collection strain no.:** IAM C-30 **Locality:** Japan **Isolator:** Watanabe, Atsushi **Identified by:** Fukushima, Hiroshi; Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10 μ mol/m²/s; 3 M (25°C; 70-80 μ mol/m²/s) **Gene data:** 16S rRNA (AJ242754); 16S rRNA (AJ242771); 18S rRNA (AJ242756); 18S rRNA (AB488575); 18S-ITS1-5.8S-ITS2 (AB162910); 28S rRNA (AB237642); CO1 (D63763); CO1 (AB011523); psaA (AB260919); rbcL (AB260909) **References:** 188, 235, 243, 261, 355, 381, 479, 498, 499, 567, 569, 721, 764, 811, 902, 968, 1108, 1111, 1125, 1135, 1187, 1212, 1268 **Remarks:** Cryopreserved

- 641 History:** < Kasai, Fumie **Locality:** Miyata River/Ibaraki/Japan (1987-02-25) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie; Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 μ mol/m²/s; 6 M **Habitat:** Freshwater (River water) **Gene data:** 18S rRNA (AB488576) **Other strain no.:** 1st-3-26 **References:** 482, 567, 1017, 1018 **Remarks:** Cryopreserved

- 642 History:** < Kasai, Fumie **Locality:** Miyata River/Ibaraki/Japan (1987-02-25) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie; Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15 μ mol/m²/s; 6 M **Habitat:** Freshwater (River water) **Gene data:** 18S rRNA (AB488577) **Other strain no.:** 1st-2-17 **References:** 401, 567, 1017, 1018 **Remarks:** Cryopreserved

- 686 History:** < Katagiri, Masayuki < CCAP **Other collection strain no.:** CCAP 211/11b; IAM C-207; SAG 211-11b **Locality:** Delft/Netherland **Isolator:** Beijerinck, M. W. **Identified by:** Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10 μ mol/m²/s; 3 M (25°C; 70-80 μ mol/m²/s) **Characteristics:** Authentic strain **Gene data:** 18S rRNA (AB488578) **Other strain no.:** C-207 **References:** 44, 385, 567, 721, 983, 1212 **Remarks:** Cryopreserved

CHLOROCOCCUM : Chlorophyceae

Chlorococcum echinozygотum Starr

- 2249 History:** < IAM (2007) < Inst. Algological Reseach, Fac. Sci., Hokkaido Univ. (1969) **Other collection strain no.:** IAM C-386 **Isolator:** Starr, R. C. **Identified by:** Starr, R. C. **States:** Unialgal; Clonal; Axenic[2012 Mar] **Culture conditions:** C (agar); 20°C; 8-15 μ mol/m²/s; 3 M

Chlorococcum elkhartense Archibald et Bold

- 2250 History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-567 (=C-283); SAG 56.72; UTEX 293; CCAP 11/57 **Locality:** Salen, Mull/Scotland/U.K. **Isolator:** Lewin, Ralph A. **Identified by:** Ettl, H.; Schlösser, U. G. **Formerly identified as:** Chlamydomonas sphagnophila Pascher **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15 μ mol/m²/s; 3 M **Characteristics:** Homothallic **Other strain no.:** Lewin DD1/174

Chlorococcum hypnosporum Starr

- 2580 History:** < IAM (2007) **Other collection strain no.:** IAM C-387 **Identified by:** Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15 μ mol/m²/s; 3 M **Gene data:** 18S rRNA (AB488561)

CHLOROGONIUM : Chlorophyceae

Chlorogonium capillatum Nozaki, M.M. Watanabe et Aizawa

- 692 **History:** < Nozaki, Hisayoshi **Locality:** Miyatoko Mire/Fukushima/Japan (1992-04-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 10°C; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater (Bog soil) **Characteristics:** Authentic strain; Monoecious; Isogamy; Paedogamy; Type specimen (NIES-50001, Epitype) **Gene data:** rbcL (AB010230) **Other strain no.:** 92-517-6-2 **References:** 567, 607, 610, 614, 737
- 742 **History:** < Nozaki, Hisayoshi < IAM **Other collection strain no.:** CCAP 12/4; IAM C-295; UTEX 201 **Locality:** Czechoslovakia **Isolator:** Meyer, H. **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** Chlorogonium tetragamum Bohlin **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27µmol/m²/s; 2 M **Gene data:** rbcL (AB010234) **Reference:** 737
- 743 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1643 **Locality:** Leveret/Massachusetts/U.S.A. **Isolator:** Kugrens, P. **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** Chlorogonium tetragamum Bohlin **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27µmol/m²/s; 2 M **Habitat:** (Soil) **Gene data:** rbcL (AB010235) **Reference:** 737
- 744 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 2160 **Locality:** Germany **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** Chlorogonium sp. (in UTEX) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27µmol/m²/s; 2 M **Gene data:** rbcL (AB010236) **Reference:** 737
- 745 **History:** < Nozaki, Hisayoshi < CCAP **Other collection strain no.:** CCAP 12/2A **Locality:** Berlin/Germany **Isolator:** Pringsheim, E. G. **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** Chlorogonium elongatum (Dangeard) Dangeard (in CCAP) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** rbcL (AB010231) **Reference:** 737
- 746 **History:** < Nozaki, Hisayoshi < CCAP **Other collection strain no.:** CCAP 12/2B **Locality:** Cape Flats/South Africa **Isolator:** George **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** Chlorogonium elongatum (Dangeard) Dangeard (in CCAP) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27µmol/m²/s; 2 M **Habitat:** (Soil) **Gene data:** rbcL (AB010232) **Reference:** 737
- 747 **History:** < Nozaki, Hisayoshi < CCAP **Other collection strain no.:** CCAP 12/5 **Isolator:** Pringsheim, E. G. **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** Chlorogonium sp. (in CCAP) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27µmol/m²/s; 2 M **Habitat:** (Freshwater) **Gene data:** rbcL (AB010233) **Reference:** 737
- 748 **History:** < Nozaki, Hisayoshi < SAG **Other collection strain no.:** SAG 12-2e **Locality:** near Prague/Czechoslovakia **Isolator:** Pringsheim, E. G. **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** Chlorogonium elongatum (Dangeard) Dangeard (in SAG) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27µmol/m²/s; 2 M **Gene data:** psaB (AB451203); rbcL (AB010237) **References:** 609, 737
- 749 **History:** < Nozaki, Hisayoshi < SAG **Other collection strain no.:** SAG 47.84 **Isolator:** Provasoli, L. **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** Chlorogonium euchlorum Ehrenberg (in SAG) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27µmol/m²/s; 2 M **Gene data:** rbcL (AB010238) **Reference:** 737
- 750 **History:** < Nozaki, Hisayoshi < SAG **Other collection strain no.:** SAG 4.93 **Locality:** Leveret/Massachusetts/U.S.A. **Isolator:** Kugrens, P. **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** Chlorogonium tetragamum Bohlin (in SAG) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27µmol/m²/s; 2 M **Habitat:** (Soil) **Gene data:** rbcL (AB010239) **Reference:** 737

Chlorogonium complexum Nakada

- 2296 **History:** < Nakada, Takashi **Locality:** Saitama/Japan (2004-08-10) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2007-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture**

conditions: AF-6; MG; 20°C; 32-40 μ mol/m²/s; 1 M **Habitat:** Freshwater (Soil) **Characteristics:** Authentic strain; Homothallic; Isogamy; Resting spore forming **Other strain no.:** KsCl-4-1 **Reference:** 614

- 2297 **History:** < Nakada, Takashi **Locality:** Toyama/Japan (2005-09-22) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2007-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; MG; 20°C; 32-40 μ mol/m²/s; 1 M **Habitat:** Freshwater (Soil) **Characteristics:** Homothallic; Isogamy; Resting spore forming **Other strain no.:** ChCl-508 **Reference:** 614

Chlorogonium elongatum (Dangeard) Francé

- 751 **History:** < Nozaki, Hisayoshi < IAM **Other collection strain no.:** CCAP 12/1; IAM C-293 (=C-568); UTEX 204 **Locality:** Caldbeck/England/U.K. **Isolator:** Pringsheim, E. G. **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** Chlorogonium acus **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27 μ mol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Characteristics:** Authentic strain; Type specimen (NIES-50002, Epitype) **Gene data:** rbcL (AJ001881) **References:** 610, 614, 737

- 752 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 2571 **Locality:** Austin/Texas/U.S.A. **Isolator:** Wood, M. **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** Chlorogonium sp. (in UTEX) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27 μ mol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Gene data:** psaB (AB451204); rbcL (AB010240) **References:** 609, 614, 737

- 753 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 2572 **Locality:** Austin/Texas/U.S.A. **Isolator:** Wood, M. **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** Chlorogonium sp. (in UTEX) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27 μ mol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Gene data:** rbcL (AB010241) **References:** 614, 737

- 1357 **History:** < Nakada, Takashi **Locality:** Atsugi, Shimokawairi/Kanagawa/Japan (1998-03-07) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VT; 20°C; 22-32 μ mol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Mixotrophic **Gene data:** rbcL (AB206330) **Other strain no.:** Chlogo-1/1998-3-7 **References:** 606, 607, 610

- 1358 **History:** < Nakada, Takashi **Locality:** Narita, Ohtake/Chiba/Japan (2003-07-23) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VT; 20°C; 22-32 μ mol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Mixotrophic **Gene data:** psaB (AB451205); rbcL (AB206329) **Other strain no.:** SkCl-2 **References:** 606, 607, 609

Chlorogonium euchlorum (Ehrenberg) Ehrenberg

- 754 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1639 **Locality:** Schickley/Nebraska/U.S.A. **Isolator:** Kugrens, P. **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** Chlorogonium elongatum (Dangeard) Dangeard (in UTEX) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27 μ mol/m²/s; 2 M **Habitat:** (Soil) **Gene data:** rbcL (AB010226) **Reference:** 737

- 755 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 2010 **Locality:** Germany **Isolator:** Müller, Dieter G. **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** Chlorogonium sp. (in UTEX) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27 μ mol/m²/s; 2 M **Characteristics:** Authentic strain; Type specimen (NIES-50003, Epitype) **Gene data:** rbcL (AB010227) **References:** 610, 737

- 756 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 2011 **Locality:** Germany **Isolator:** Müller, Dieter G. **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** Chlorogonium sp. (in UTEX) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27 μ mol/m²/s; 2 M **Gene data:** rbcL (AB010228) **Reference:** 737

- 757 **History:** < Nozaki, Hisayoshi < CCAP **Other collection strain no.:** CCAP 12/2C **Locality:** Amiens/France **Isolator:** Pringsheim, E. G. **Identified by:** Nozaki, Hisayoshi (Reidentify)

Formerly identified as: Chlorogonium elongatum (Dangeard) Dangeard (in CCAP) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27µmol/m²/s; 2 M **Habitat:** (Freshwater) **Gene data:** rbcL (AB010224) **Reference:** 737

758 History: < Nozaki, Hisayoshi < CCAP **Other collection strain no.:** CCAP 12/3 **Locality:** Berlin/Germany **Isolator:** Mainx **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** Chlorogonium euchlorum Ehrenberg (in CCAP) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27µmol/m²/s; 2 M **Habitat:** (Freshwater) **Gene data:** rbcL (AJ001882) **Reference:** 737

759 History: < Nozaki, Hisayoshi < CCAP **Other collection strain no.:** CCAP 12/6 **Isolator:** Pringsheim, E. G. **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** Chlorogonium sp. (in CCAP) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27µmol/m²/s; 2 M **Habitat:** (Freshwater) **Gene data:** rbcL (AB010225) **Reference:** 737

760 History: < Nozaki, Hisayoshi < SAG **Other collection strain no.:** SAG 12-2d **Locality:** Cape Flats/South Africa **Isolator:** Pringsheim, E. G. **Identified by:** Nozaki, Hisayoshi (Reidentify) **Formerly identified as:** Chlorogonium elongatum (Dangeard) Dangeard (in SAG) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27µmol/m²/s; 2 M **Habitat:** (Soil) **Gene data:** psaB (AB451206); rbcL (AB010229) **References:** 609, 737

CHLOROKYBUS : Charophyceae

***Chlorokybus* sp.**

160 History: < Watanabe, Shin **Locality:** Tottori/Japan (1972-05-19) **Isolator:** Watanabe, Shin **Identified by:** Watanabe, Shin **Formerly identified as:** Chlorosarcinopsis caeca S.Watanabe **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Soil) **Other strain no.:** TOT-24 **References:** 567, 1186

CHLOROMONAS : Chlorophyceae

***Chloromonas actinochloris* (Deason et Bold) Pröschold, Marin, Schrösser et Melkonian**

2201 History: < IAM (2007) < BIU (UTEX; 1960) **Other collection strain no.:** IAM C-213; SAG 1.72; UTEX 965 **Locality:** Caldwell County/Texas/U.S.A. **Isolator:** Deason, T. R. **Formerly identified as:** Chlamydomonas actinochloris Deason et Bold **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Characteristics:** Hydrogen evolution **Other strain no.:** Deason C-2-14 **Reference:** 38

2224 History: < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-558 (=C-7); UTEX 578; SAG 34.72 **Isolator:** Tsubo, Yoshihiro **Formerly identified as:** Chlamydomonas mutabilis Gerloff **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Other strain no.:** Tsubo T-A

***Chloromonas augustae* (Skuja) Pröschold, Marin, Schrösser et Melkonian**

158 History: < Watanabe, Shin **Locality:** Sumatra/Indonesia (1979-08-21) **Isolator:** Watanabe, Shin **Identified by:** Watanabe, Shin **Formerly identified as:** Chlamydomonas augustae Skuja var. ellipsoidea S.Watanabe **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Authentic strain **Other strain no.:** ASE-242 **References:** 374, 567, 1186, 1187

***Chloromonas carrizoensis* (Ettl et Schwarz) Pröschold, Marin, Schrösser et Melkonian**

2575 History: < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-277; SAG 46.72; UTEX B 968 **Locality:** Caldwell County/Texas/U.S.A. **Isolator:** Deason, T. R. **Formerly identified as:** Chlamydomonas chlorococcoides Ettl et Schwarz **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat:** (Soil) **Other strain no.:** Deason C-2-4

***Chloromonas insignis* (Anachin) Gerloff et Ettl**

- 447 History:** < Suda, Shoichiro **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-08-22) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 22-32µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** atpB (AB084313); psaB (AB084348); rbcL (AB022226) **Other strain no.:** Kas-8 **References:** 567, 572, 740

Chloromonas pseudoplatyrrhyncha (Pascher) Silva

Syn. Chlamydomonas platyrrhyncha Pascher 1927 p.308; Chlamydomonas polychloris Korshikov non Pascher; Chloromonas platyrrhyncha Ettl

- 2563 History:** < Nozaki, Hisayoshi **Locality:** Hojo-ike Pond/Kagawa/Japan (2003-10-21) **Isolator:** Nakada, Takashi **Identified by:** Matsuzaki, Ryo (2009-08-28) **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Freshwater (Sediment) **Other strain no.:** HjCl-3 **Reference:** 510

Chloromonas sp.

- 2203 History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-216; SAG 3.72; UTEX 967 **Locality:** Caldwell County/Texas/U.S.A. **Isolator:** Deason, T. R. **Formerly identified as:** Chlamydomonas appplanata Prinsheim; Chlamydomonas akinetos Deason et Bold **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat:** (Soil) **Other strain no.:** Deason C-1-11 **Reference:** 38

- 2379 History:** < Muramoto, Kyohei **Locality:** Mt. Gassan/Yamagata/Japan (2006-06-15) **Isolator:** Muramoto, Kyohei **Identified by:** Muramoto, Kyohei; Nozaki , Hisayoshi (2008-02-06) **Formerly identified as:** Chloromonas miwae (Fukushima) Muramoto **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 10 °C ; 20-32µmol/m²/s; 2 M **Habitat:** Terrestrial (Snow) **Characteristics:** Stenothermal; Cryophilic **Other strain no.:** GS1 **Reference:** 588

- 2380 History:** < Muramoto, Kyohei **Locality:** Mt. Gassan/Yamagata/Japan (2006-06-15) **Isolator:** Muramoto, Kyohei **Identified by:** Muramoto, Kyohei; Nozaki , Hisayoshi (2008-02-06) **Formerly identified as:** Chloromonas miwae (Fukushima) Muramoto **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 10 °C ; 20-32µmol/m²/s; 2 M **Habitat:** Terrestrial (Snow) **Characteristics:** Stenothermal; Cryophilic **Other strain no.:** STR **Reference:** 588

CHLOROTETRAEDRON : Chlorophyceae

Chlorotetraedron incus (Teiling) MacEntee et al.

Syn. Tetraëdron incus (Teiling) G.M. Smith

- 392 History:** < Kasai, Fumie **Locality:** Tsukuba/Ibaraki/Japan (1984-05-07) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Pond water) **Other strain no.:** F115 **Remarks:** Cryopreserved

CHORICYSTIS : Trebouxiophyceae

Choricystis minor (Skuja) Fott

- 1436 History:** < TKB **Locality:** Hyotaro-ike Pond/Ibaraki/Japan (2003-01-**) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 20-30µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TKB-052 (nak-07)

Choricystis sp.

- 1840 History:** < TKB **Locality:** Shishizuka-ohike Pond/Ibaraki/Japan (2004-06-24) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi (2004-**-**) **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** C; 20°C; 20-30µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TKB-198

- 2333 History:** < Takamura, Noriko **Locality:** Lake Misuzu/Nagano/Japan (1991-05-17) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko; Re-identified at NIES by DNA sequencing

Formerly identified as: Mychonastes sp. **States:** Unialgal **Culture conditions:** CB; 15°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** 18S rRNA (AB488792); 18S rRNA (AB488793) **Other strain no.:** MSZ 3

- 2335 History:** < Takamura, Noriko **Locality:** Lake Kuttara/Hokkaido/Japan (1991-07-15) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko; Re-identified at NIES by DNA sequencing
Formerly identified as: Mychonastes sp. **States:** Unialgal **Culture conditions:** CB; 15°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** 18S rRNA (AB488584)
Other strain no.: KUTA 1
- 2337 History:** < Takamura, Noriko **Locality:** Lake Shikotsu/Hokkaido/Japan (1991-05-27) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko; Re-identified at NIES by DNA sequencing
Formerly identified as: Mychonastes sp. **States:** Unialgal **Culture conditions:** C; 15°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** 18S rRNA (AB488585)
Other strain no.: SKT 1
- 2338 History:** < Takamura, Noriko **Locality:** Lake Toya/Hokkaido/Japan (1991-05-30) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko; Re-identified at NIES by DNA sequencing
Formerly identified as: Mychonastes sp. **States:** Unialgal **Culture conditions:** C; 15°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** 18S rRNA (AB488586)
Other strain no.: TOYA 1
- 2342 History:** < Takamura, Noriko **Locality:** Lake Otadomarinuma/Hokkaido/Japan (1991-05-29) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko; Re-identified at NIES by DNA sequencing **Formerly identified as:** Auxenochlorella sp. **States:** Unialgal **Culture conditions:** CB; 15°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** 18S rRNA (AB488587) **Other strain no.:** OTD 1 **Remarks:** Cryopreserved

CHROMULINA : Chrysophyceae

Chromulina sp.

- 2304 History:** < Suda, Shoichiro **Locality:** Harima-nada/Japan (1984-08-10) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 22-32µmol/m²/s; 3 M **Habitat:** Marine (Seawater) **Other strain no.:** 810YB-10

CHROODACTYLON : Stylopematophyceae

Chroodactylon ornatum (C.Agardh) Basson

Syn. *Asterocystis smargadina* Reinsch; *Asterocystis ramosa* (Thwaites) Gobi; *Chroodactylon ramosum* (Thwaites) Hansgirg

- 1969 History:** < Sato, Mayumi **Locality:** Miyako Isl./Okinawa/Japan (2002-07-**) **Isolator:** Sato, Mayumi **Identified by:** Yokoyama, Akiko (2007-02-20) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20 °C ; 15-22µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Characteristics:** Epiphytic **Other strain no.:** M-76
- 1970 History:** < Sato, Mayumi **Locality:** Ishigaki Isl., Urasoko Bay/Okinawa/Japan (2004-02-19) **Isolator:** Sato, Mayumi **Identified by:** Yokoyama, Akiko (2007-02-20) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 15-22µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Characteristics:** Epiphytic **Other strain no.:** M-183
- 1971 History:** < Sato, Mayumi **Locality:** Seragaki Beach/Okinawa/Japan (2004-02-20) **Isolator:** Sato, Mayumi **Identified by:** Yokoyama, Akiko (2007-02-20) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20 °C ; 15-22µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Characteristics:** Epiphytic **Other strain no.:** M-184

CHROOGLOEOCYSTIS : Cyanophyceae

Chroogloeocystis siderophila I.I. Brown et Cooksey

- 1031 History:** < Brown, Igor I. **Locality:** La Duke Hot Spring/Montana/U.S.A. (2001-7-**) **Isolator:**

Brown, Igor I. **Identified by:** Brown, Igor; Mumme, Daniel **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** DH + Fe (agar); MDM (agar); 24 °C; 20-30µmol/m²/s; 4 M (37 °C; 15-25µmol/m²/s) **Habitat:** Hot spring (Bottom mud) **Characteristics:** Biofilm process; Thermophilic **Gene data:** 16S rRNA (AY380791) **Other strain no.:** 5.2 s.c.1

CHROOMONAS : Cryptophyceae

Chroomonas caudata Geitler

- 712 **History:** < Erata, Mayumi **Locality:** Funada-ike Pond/Chiba/Japan (1985-09-**) **Isolator:** Erata, Mayumi **Identified by:** Erata, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 8-15µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Gene data:** 18S rRNA (AB240963); Nuclear actin (AB126024) **Other strain no.:** #00171 **References:** 86, 1248

Chroomonas coerulea (Geitler) Skuja

Syn. *Cryptomonas coerulea* Geitler

- 713 **History:** < Erata, Mayumi **Locality:** Sugadaira Moor/Nagano/Japan (1985-11-10) **Isolator:** Erata, Mayumi **Identified by:** Erata, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 8-15µmol/m²/s; 2 M **Habitat:** Freshwater (Bog water) **Other strain no.:** #00191 **References:** 84, 86

- 714 **History:** < Erata, Mayumi **Locality:** Sugadaira Moor/Nagano/Japan (1985-11-10) **Isolator:** Erata, Mayumi **Identified by:** Erata, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 8-15µmol/m²/s; 2 M **Habitat:** Freshwater (Bog water) **Other strain no.:** #00217 **References:** 84, 86, 87

- 1004 **History:** < Moriya, Mayumi **Locality:** Bibi River/Hokkaido/Japan (1999-11-**) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 20-30µmol/m²/s; 2 M **Habitat:** Freshwater (River water) **Other strain no.:** #74

Chroomonas collegianis Butcher

- 703 **History:** < Erata, Mayumi < Hara, Yoshiaki < CCAP **Other collection strain no.:** CCAP 978/11 **Locality:** River Thames/Esssex/U.K. (1961-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15 °C; 20-30µmol/m²/s; 1 M **Habitat:** Brackish water **Characteristics:** Authentic strain **Other strain no.:** M08

Chroomonas dispersa Butcher

- 704 **History:** < Erata, Mayumi < Hara, Yoshiaki < CCAP **Other collection strain no.:** CCAP 978/10 **Locality:** Bristol Channel/U.K. (1960-08-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Authentic strain **Gene data:** 18S rRNA (AB240961) **Other strain no.:** M09

Chroomonas mesostigmatica Butcher

- 1370 **History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2004-02-09) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2 + NH₄Cl; 20°C; 15-22µmol/m²/s; 1 M **Habitat:** Marine (Sand and seawater) **Other strain no.:** TKB-112 (AK-13)

Chroomonas nordstedtii Hansgirg

- 706 **History:** < Erata, Mayumi **Locality:** Sugadaira Moor/Nagano/Japan (1976-09-**) **Isolator:** Inouye, Isao **Identified by:** Erata, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 8-15µmol/m²/s; 2 M **Habitat:** Freshwater (Bog water) **Other strain no.:** #00165 **References:** 84, 85, 86, 142, 1036

- 707 **History:** < Erata, Mayumi **Locality:** Funada-ike Pond/Chiba/Japan (1985-09-**) **Isolator:** Erata, Mayumi **Identified by:** Erata, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 8-15µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** #00173 **References:** 86, 87

- 708 **History:** < Erata, Mayumi **Locality:** Hokkaido University/Hokkaido/Japan (1987-09-24) **Isolator:** Erata, Mayumi **Identified by:** Erata, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 8-15µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Gene data:** 18S rRNA (AB240962); 28S rRNA (HE820916); Nuclear actin (AB126023) **Other strain no.:** #00324 **Reference:** 86
- 709 **History:** < Erata, Mayumi **Locality:** Hokkaido University/Hokkaido/Japan (1987-09-24) **Isolator:** Erata, Mayumi **Identified by:** Erata, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 8-15µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** #00330 **Reference:** 86
- 710 **History:** < Erata, Mayumi **Locality:** Hokkaido University/Hokkaido/Japan (1987-09-24) **Isolator:** Erata, Mayumi **Identified by:** Erata, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 8-15µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** #00331 **Reference:** 86
- 711 **History:** < Erata, Mayumi **Locality:** Mitsukaido/Ibaraki/Japan (1987-01-17) **Isolator:** Suda, Shoichiro **Identified by:** Erata, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 8-15µmol/m²/s; 2 M **Habitat:** Freshwater (Sediment) **Other strain no.:** #00354

Chroomonas placoidea Butcher

- 705 **History:** < Erata, Mayumi < Hara, Yoshiaki < CCAP **Other collection strain no.:** CCAP 978/8 **Locality:** Yorkshire/U.K. (1959-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Authentic strain **Other strain no.:** M11 **Reference:** 85

Chroomonas sp.

- 2331 **History:** < Hatakeyama, Noriko **Locality:** Naka River/Ibaraki/Japan (1992-04-14) **Isolator:** Hatakeyama, Noriko **Identified by:** Hatakeyama, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; WESM; 20°C; 15-27µmol/m²/s; 2 M **Habitat:** Brackish water (Sediment) **Other strain no.:** NAK-1

CHRYSOCHROMULINA : Prymnesiophyceae

Chryschromulina hirta Manton

- 741 **History:** < Kawachi, Masanobu **Locality:** Chiba Harbor/Chiba/Japan (1986-06-23) **Isolator:** Kawachi, Masanobu **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15 °C ; 35-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Mixotrophic; Phagotrophic **Other strain no.:** CH1 **Reference:** 142

Chryschromulina parva Lackey

- 562 **History:** < Hatakeyama, Noriko **Locality:** inside NIES/Ibaraki/Japan (1992-02-13) **Isolator:** Hatakeyama, Noriko **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 35-50µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water)

Chryschromulina quadrikonta Kawachi et Inouye

- 998 **History:** < Kawachi, Masanobu **Locality:** off Uramura/Mie/Japan (2001-01-12) **Isolator:** Hata, Naotsugu **Identified by:** Inouye, Isao **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 20-30µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** CQ13T

Chryschromulina simplex Estep, Davis, Hargraves et Sieburth

- 1392 **History:** < TKB **Locality:** Chiba Harbor/Chiba/Japan (2004-07-**) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** mIMR; 20°C; 15-22µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-129 (nak23)

Chryschromulina sp.

- 1333 **History:** < TKB **Locality:** Tokyo Bay/Japan (2003-10-16) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Prey for Kathablepharis japonica (NIES-1334) and Leucocryptos marina (NIES-1335) **Gene data:** 18S rRNA (DQ980478); β-tubulin (AB194979) **Other strain no.:** TKB-079 (nrc063) **References:** 392, 799
- 1391 **History:** < TKB **Locality:** Tokyo Bay/Tokyo/Japan (2003-08-**) **Isolator:** Yoshida, Masaki **Identified by:** Yoshida, Masaki (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** WESM; 20°C; 40-50µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-210 (ym-12)
- 2506 **History:** < Inouye, Isao **Locality:** Ashikita Beach/Kumamoto/Japan (2006-03-26) **Isolator:** Chikuni, Tomoko **Identified by:** Chikuni, Tomoko (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** IMK; 20°C; 10-15µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Other strain no.:** TKB-348

CHRYSOCULTER : Prymnesiophyceae

Chrysoculter rhomboideus Nakayama, Yoshida, Noël, Kawachi et Inouye

- 1874 **History:** < Nakayama, Takeshi **Locality:** Okumatsushima/Miyagi/Japan (1998-10-**) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama Takeshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20 °C ; 22-32µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Authentic strain **Other strain no.:** TKB-54 **Reference:** 660

CHRYSOPHAEUM : Pelagophyceae

Chrysophaeum taylorii Lewis et Bryan

- 1699 **History:** < Honda, Daisuke **Locality:** Iriomote Isl., Funaura/Okinawa/Japan (2000-08-04) **Isolator:** Fukaya, Sachiko **Identified by:** Fukaya, Sachiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 25-40µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** SEK-105
- 1700 **History:** < Honda, Daisuke **Locality:** Guam Isl., Agat Bay, Haps Reef/U.S.A. (2001-05-13) **Isolator:** Fukaya, Sachiko **Identified by:** Fukaya, Sachiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 25-40µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** SEK-109

CLOSTERIUM : Charophyceae

Closterium acerosum Ehrenberg ex Ralfs

- 124 **History:** < Watanabe, Masayuki **Locality:** Daramshara/Nepal (1965-10-25) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C; 20°C; 8-15µmol/m²/s; 3 M (20°C; 15-27µmol/m²/s) **Habitat:** Freshwater (Pond sediment) **Other strain no.:** N-20-1 **References:** 229, 567
- 125 **History:** < Watanabe, Masayuki **Locality:** Rukumkot/Nepal (1965-10-29) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15µmol/m²/s; 3 M (20°C; 15-27µmol/m²/s) **Habitat:** Freshwater (Pond sediment) **Gene data:** 18S rRNA (AF352230) **Other strain no.:** N-25-22 **References:** 66, 229, 567
- 127 **History:** < IAM (1983) **Other collection strain no.:** IAM C-435 **Locality:** Sapporo/Hokkaido/Japan **Isolator:** Nishihama, Yuji **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20 °C ; 8-15µmol/m²/s; 3 M (20 °C ; 15-27µmol/m²/s) **Habitat:** Freshwater (Stream sediment) **Characteristics:** Homothallic **Other strain no.:** H-2-2 **References:** 229, 235, 567
- 448 **History:** < IAM (1983) **Other collection strain no.:** IAM C-314; UTEX 1075 **Locality:** Japan **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15µmol/m²/s; 3 M (20°C;

15-27 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater **References:** 235, 567

Closterium aciculare T.West var. *subpronum* W. et G.S. West

- 258 History:** < Watanabe, Makoto M. **Locality:** Lake Biwa/Shiga/Japan (1983-12-13) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** CA; 20°C; 32-40 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Other water bloom; Heterothallic; Mating type(+); Crosses with NIES-259 and 260 **Other strain no.:** Bca-25 **Reference:** 55
- 259 History:** < Watanabe, Makoto M. **Locality:** Lake Biwa/Shiga/Japan (1983-12-13) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** CA; 20°C; 32-40 $\mu\text{mol}/\text{m}^2/\text{s}$; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Other water bloom; Heterothallic; Mating type(-); Crosses with NIES-258 **Other strain no.:** Bca-26 **Reference:** 567

Closterium calosporum Wittrock var. *calosporum*

- 271 History:** < IAM (1983) **Other collection strain no.:** IAM C-318 **Locality:** Vermont/U.S.A. **Isolator:** Cook, P. W. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Pool soil) **Gene data:** 18S rRNA (AF352225) **References:** 66, 235, 241, 567, 1137, 1138

Closterium calosporum Wittrock var. *galiciense* Gutwinski

- 128 History:** < Watanabe, Masayuki **Locality:** Ibaraki/Japan **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20 °C ; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20 °C ; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic: Mating type(-); Crosses with NIES-162 **Other strain no.:** IB-21-20 **Reference:** 567
- 162 History:** < Watanabe, Masayuki **Locality:** Ibaraki/Japan **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (25°C; 60-70 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic: Mating type(+); Crosses with NIES-128, 163 and 168 **Other strain no.:** IB-21-21 **Reference:** 567
- 163 History:** < IAM (1983) **Other collection strain no.:** IAM C-455 **Locality:** Ginama/Okinawa/Japan (1973-06-15) **Isolator:** Ichimura, Terunobu **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic: Mating type(-); Crosses with NIES-162, 164 and 165 **Other strain no.:** R-5-3 **References:** 241, 567, 1137, 1138
- 164 History:** < IAM (1983) **Other collection strain no.:** IAM C-454 **Locality:** Ginama/Okinawa/Japan (1973-06-15) **Isolator:** Ichimura, Terunobu **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic: Mating type(+); Crosses with NIES-163 and 166 **Other strain no.:** R-5-2 **References:** 241, 567, 1137, 1138
- 165 History:** < IAM (1983) **Other collection strain no.:** IAM C-457 **Locality:** Iriomote Isl./Okinawa/Japan (1973-03-25) **Isolator:** Ichimura, Terunobu **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (25°C; 60-70 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic: Mating type(+); Crosses with NIES-163, 166 and 168 **Gene data:** 18S rRNA (AF352239) **Other strain no.:** R-11-6 **References:** 66, 241, 567, 1137, 1138
- 166 History:** < Watanabe, Masayuki **Locality:** Kagawa/Japan (1974-09-**) **Isolator:** Ichimura, Terunobu **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20 °C ; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20 °C ; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Characteristics:** Heterothallic: Mating type(-); Crosses with NIES-164, 165 and 167 **Other strain no.:** J5-56-11 **Reference:** 567

167 History: < Watanabe, Masayuki **Locality:** Kagawa/Japan (1974-09-**) **Isolator:** Ichimura, Terunobu **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20 °C ; 8-15µmol/m²/s; 3 M (20 °C ; 22-32µmol/m²/s) **Characteristics:** Heterothallic: Mating type(+); Crosses with NIES-166 **Other strain no.:** J5-56-12 **Reference:** 567

168 History: < Watanabe, Masayuki **Locality:** Iriomote Isl./Okinawa/Japan (1973-03-**) **Isolator:** Ichimura, Terunobu **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic: Mating type(-); Crosses with NIES-165 **Other strain no.:** R-11-5 **References:** 241, 567, 1137, 1138

Cladophora calosporum Wittrock var. *himalayense* M.Watanabe

169 History: < Watanabe, Masayuki **Locality:** Shewaden/Nepal (1972-06-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Stream sediment) **Characteristics:** Homothallic **Other strain no.:** N-134-5 **References:** 567, 1137, 1138

170 History: < Watanabe, Masayuki **Locality:** Suke/Nepal (1972-06-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 20°C; 8-15µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Pond sediment) **Characteristics:** Homothallic **Gene data:** 18S rRNA (AF352229) **Other strain no.:** N-143-19 **References:** 66, 567

171 History: < Watanabe, Masayuki **Locality:** Suke/Nepal (1972-06-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 20°C; 8-15µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Pond sediment) **Characteristics:** Homothallic **Other strain no.:** N-147-3 **References:** 357, 567, 1137

336 History: < Watanabe, Masayuki **Locality:** Suke/Nepal (1972-06-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 22°C; 60-70µmol/m²/s; 2 M **Habitat:** Freshwater (Pond sediment) **Characteristics:** Homothallic **Other strain no.:** N-147-12 **References:** 567, 1137

Cladophora ehrenbergii Meneghini ex Ralfs

228 History: < Ichimura, Terunobu **Locality:** Ebina/Kanagawa/Japan (1975-12-04) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C; 20°C; 8-15µmol/m²/s; 3 M (25°C; 60-70µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type(+); Mating group B; Crosses with NIES-229 **Gene data:** 18S rRNA (AY148818); 5.8S-ITS2-28S (AY148895); cdip-1 mRNA (AB066448) **Other strain no.:** KK-33-1 **References:** 54, 67, 116, 117, 118, 119, 191, 232, 233, 236, 237, 239, 259, 357, 358, 396, 567, 756, 891, 917, 956

229 History: < Ichimura, Terunobu **Locality:** Ebina/Kanagawa/Japan (1975-12-04) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C; 20°C; 8-15µmol/m²/s; 3 M (20°C; 15-27µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type(-); Mating group B; Crosses with NIES-228 **Gene data:** 18S rRNA (AY148821); 5.8S-ITS2-28S (AY148898); scdip-1mRNA (AB066448) **Other strain no.:** KK-33-6 **References:** 54, 67, 116, 117, 118, 119, 191, 232, 233, 236, 237, 239, 357, 358, 567, 756, 757, 917

Cladophora gracile Brébisson ex Ralfs

179 History: < IAM (1983) **Other collection strain no.:** IAM C-444 (=C-570) **Locality:** Kathmandu/Nepal (1968-05-18) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15µmol/m²/s; 3 M (20°C; 15-27µmol/m²/s) **Habitat:** Freshwater (Sediment) **Characteristics:** Heterothallic: Mating type(+); Crosses with NIES-180 **Other strain no.:** N-90-58 **References:** 228, 229, 235, 567

180 History: < IAM (1983) **Other collection strain no.:** IAM C-445 (=C-571) **Locality:** Kathmandu/Nepal (1968-05-18) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 20°C; 8-15µmol/m²/s; 3 M (20°C;

15-27 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Sediment) **Characteristics:** Heterothallic: Mating type(–); Crosses with NIES-179 **Gene data:** 18S rRNA (AF352227); 18S rRNA (AF352237) **Other strain no.:** N-90-59 **References:** 66, 228, 229, 235, 567

Closterium incurvum Brébisson

- 181 **History:** < IAM (1983) **Other collection strain no.:** IAM C-438 (=C-572) **Locality:** Dhorpatan/Nepal (1965-11-09) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Sphagnum) **Characteristics:** Homothallic **Gene data:** 18S rRNA (AF352231) **Other strain no.:** N-34-2 **References:** 66, 228, 229, 235, 567
- 337 **History:** < Watanabe, Masayuki **Locality:** Nawakot/Nepal (1965-10-12) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CA; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Pond water) **Characteristics:** Homothallic **Other strain no.:** N-12-92 **References:** 229, 567

Closterium moniliferum Ehrenberg ex Ralfs var. *moniliferum*

- 172 **History:** < Watanabe, Masayuki **Locality:** Nepal **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Characteristics:** Homothallic **Gene data:** 18S rRNA (AY148874); 18S rRNA (AY148875); 5.8S-ITS2-28S (AY148948) **Other strain no.:** N-100-1 **References:** 67, 567
- 173 **History:** < IAM (1983) **Other collection strain no.:** IAM C-432 (=C-573) **Locality:** Kitamoto/Saitama/Japan (1969-01-**) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 15-27 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic **Gene data:** 5.8S-ITS2-28S (AY148950) **Other strain no.:** S-1-22 **References:** 67, 228, 235, 567
- 174 **History:** < Watanabe, Masayuki **Locality:** Ghorepani/Nepal (1965-12-02) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 15-27 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Pond sediment) **Characteristics:** Homothallic **Gene data:** 18S rRNA (AF352233); 5.8S-ITS2-28S (AY148949) **Other strain no.:** N-76-30 **References:** 66, 67, 229, 567

Closterium moniliferum Ehrenberg ex Ralfs var. *submoniliferum* (Woronichin) Krieger

- 182 **History:** < IAM (1983) **Other collection strain no.:** IAM C-433 **Locality:** Kitamoto/Saitama/Japan (1969-01-**) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 15-27 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Sediment) **Characteristics:** Heterothallic: Mating type(+); Crosses with NIES-183 **Gene data:** 18S rRNA (AY148869); 18S rRNA (AY148870); 5.8S-ITS2-28S (AY148940) **Other strain no.:** S-1-13 **References:** 67, 229, 235, 567, 941
- 183 **History:** < IAM (1983) **Other collection strain no.:** IAM C-434 (=C-574) **Locality:** Kitamoto/Saitama/Japan (1969-01-**) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 15-27 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Sediment) **Characteristics:** Heterothallic: Mating type(–); Crosses with NIES-182 **Gene data:** 18S rRNA (AY148871); 18S rRNA (AY148872); 5.8S-ITS2-28S (AY148942) **Other strain no.:** S-1-24 **References:** 67, 228, 229, 235, 567

Closterium navicula (Brébisson) Lütkemüller

- 175 **History:** < IAM (1983) **Other collection strain no.:** IAM C-443 (=C-575) **Locality:** Chingkhola/Nepal (1965-11-18) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic **Gene data:** 18S rRNA (AF352232) **Other strain no.:** N-49-7 **References:** 66, 228, 229, 235, 567
- 176 **History:** < Watanabe, Masayuki **Locality:** Ghorepani/Nepal (1965-12-02) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 $\mu\text{mol}/\text{m}^2/\text{s}$; 3 M (20°C; 22-32 $\mu\text{mol}/\text{m}^2/\text{s}$) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic **Other strain no.:** N-75-10 **References:** 229, 567

177 **History:** < Watanabe, Masayuki **Locality:** Billethadi/Nepal (1965-12-03) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 20°C; 8-15µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Pond sediment) **Characteristics:** Homothallic **Other strain no.:** N-79-26 **References:** 229, 567

178 **History:** < Watanabe, Masayuki **Locality:** Shewaden/Nepal (1972-06-**) **Isolator:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 20°C; 8-15µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Stream sediment) **Other strain no.:** N-134-15 **Reference:** 567

Cladophora peracerosum-strigosum-littorale complex

51 **History:** < Watanabe, Makoto M. **Locality:** Katsuta/Ibaraki/Japan (1974-08-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 15°C; 10-18µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic: Mating type(+); Mating group II A **Other strain no.:** IB-4-2 **References:** 567, 1147, 1152, 1153, 1154

52 **History:** < Watanabe, Makoto M. **Locality:** Katsuta/Ibaraki/Japan (1974-08-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 15°C; 10-18µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic: Mating type(-); Mating group II A **Gene data:** 18S rRNA (AF352226) **Other strain no.:** IB-4-9 **References:** 66, 567, 941, 1147, 1152, 1153, 1154

53 **History:** < Watanabe, Makoto M. **Locality:** Katsuta/Ibaraki/Japan (1974-08-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 15°C; 10-18µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic: Mating type(+); Mating group II A **Other strain no.:** IB-6-8 **References:** 567, 1147, 1152, 1153, 1154

54 **History:** < Watanabe, Makoto M. **Locality:** Katsuta/Ibaraki/Japan (1974-08-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 15°C; 10-18µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic: Mating type(-); Mating group II A **Other strain no.:** IB-6-9 **References:** 567, 1147, 1152, 1153

55 **History:** < Watanabe, Makoto M. **Locality:** Katsuta/Ibaraki/Japan (1975-05-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 15°C; 10-18µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic: Mating type(-); Mating group II C **Other strain no.:** IB-8-15 **References:** 567, 1147, 1152, 1153

56 **History:** < Watanabe, Makoto M. **Locality:** Katsuta/Ibaraki/Japan (1975-05-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 15°C; 10-18µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic: Mating type(-); Mating group II A **Other strain no.:** IB-8-24 **References:** 567, 838, 1147, 1152, 1153

57 **History:** < Watanabe, Makoto M. **Locality:** Katsuta/Ibaraki/Japan (1975-05-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic [2013 Jan] **Culture conditions:** C; 15°C; 10-18µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic: Mating type(+); Mating group II A **Other strain no.:** IB-8-25 **References:** 567, 838, 1147, 1152, 1153

58 **History:** < Watanabe, Makoto M. **Locality:** Mito/Ibaraki/Japan (1975-06-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 15°C; 10-18µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic: Mating type(-); Mating group II A **Other strain no.:** IB-10-1 **References:** 567, 1147, 1152, 1153

59 **History:** < Watanabe, Makoto M. **Locality:** Mito/Ibaraki/Japan (1975-06-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture**

- conditions:** C; 15°C; 10-18µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic: Mating type(+); Mating group II A **Other strain no.:** IB-10-2 **References:** 567, 1147, 1152, 1153
- 60 History:** < Watanabe, Makoto M. **Locality:** Mito/Ibaraki/Japan (1975-06-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 15°C; 10-18µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic: Mating type(+); Mating group II B **Other strain no.:** IB-12-1 **References:** 567, 1147, 1152, 1153
- 61 History:** < Watanabe, Makoto M. **Locality:** Mito/Ibaraki/Japan (1975-06-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 15°C; 10-18µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic: Mating type(-); Mating group II B **Other strain no.:** IB-12-2 **References:** 567, 1147, 1152, 1153
- 62 History:** < Watanabe, Makoto M. **Locality:** Katsuta/Ibaraki/Japan (1975-06-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 15°C; 10-18µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic: Mating type(+); Mating group II A **Other strain no.:** IB-13-1 **References:** 567, 1147, 1152, 1153
- 63 History:** < Watanabe, Makoto M. **Locality:** Katsuta/Ibaraki/Japan (1975-06-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 15°C; 10-18µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic: Mating type(-); Mating group II A **Other strain no.:** IB-13-2 **References:** 567, 1147, 1152, 1153
- 64 History:** < Watanabe, Makoto M. **Locality:** Lake Kasumigaura/Ibaraki/Japan (1974-11-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic[2012 Nov] **Culture conditions:** C; 15°C; 10-18µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Lake water) **Characteristics:** Heterothallic: Mating type(-); Mating group II B **Other strain no.:** KAS-4-29 **References:** 363, 364, 365, 567, 657, 917, 922, 923, 931, 1147, 1152, 1153, 1154
- 65 History:** < Watanabe, Makoto M. **Locality:** Lake Kasumigaura/Ibaraki/Japan (1974-11-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C; 15°C; 10-18µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Lake water) **Characteristics:** Heterothallic: Mating type(+); Mating group II B **Other strain no.:** KAS-4-30 **References:** 363, 364, 365, 567, 657, 917, 922, 923, 931, 1147, 1152, 1153, 1154
- 66 History:** < Ichimura, Terunobu **Other collection strain no.:** IAM C-440 (=C-576) **Locality:** Piuthan/Nepal (1965-10-14) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 15°C; 10-18µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Pond sediment) **Characteristics:** Heterothallic: Mating type(+); Mating group I A **Other strain no.:** N-13-1 **References:** 227, 228, 229, 567, 1147
- 67 History:** < Ichimura, Terunobu **Locality:** Damchan/Nepal (1965-11-05) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 15°C; 10-18µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Pool soil) **Characteristics:** Heterothallic: Mating type(+); Mating group I B **Gene data:** 5.8S-ITS2-28S (AB625554); CpMADS1 mRNA (AB091476); CpPI (AB012698); ESTs(cDNA) (AU294770-AU295959); PR-IP(two subunits) (AB000908); PR-IP(two subunits) (AB000909) **Other strain no.:** N-31-19 **References:** 8, 83, 229, 257, 567, 686, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 1014, 1055, 1084, 1085, 1147
- 68 History:** < Ichimura, Terunobu **Locality:** Damchan/Nepal (1965-11-05) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 15°C; 10-18µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Pool soil) **Characteristics:** Heterothallic: Mating type(-); Mating group I B **Gene data:** CpMADS1

mRNA (AB091476); CpPI (AB012698); ESTs(cDNA) (AU294770-AU295959) **Other strain no.:** N-31-24 **References:** 8, 83, 229, 257, 567, 686, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 930, 931, 932, 1055, 1084, 1085, 1147

- 69 History:** < Watanabe, Makoto M. **Locality:** Lake Teganuma/Chiba/Japan (1974-06-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 15°C; 10-18µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater **Characteristics:** Heterothallic: Mating type(+); Mating group II B **Other strain no.:** TG-2-21 **References:** 567, 1147, 1152, 1153
- 70 History:** < Watanabe, Makoto M. **Locality:** Lake Teganuma/Chiba/Japan (1974-06-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 15°C; 10-18µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater **Characteristics:** Heterothallic: Mating type(-); Mating group II B **Other strain no.:** TG-2-22 **References:** 567, 1147, 1152, 1153
- 261 History:** < Watanabe, Makoto M. **Locality:** Katsuta/Ibaraki/Japan (1974-08-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 15°C; 10-18µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic: Mating type(+); Mating group II C **Other strain no.:** IB-8-14 **References:** 567, 1147, 1152, 1153
- 262 History:** < Ichimura, Terunobu **Other collection strain no.:** IAM C-441(=C-577) **Locality:** Piuthan/Nepal (1965-10-14) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 15°C; 10-18µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Reservoir sediment) **Characteristics:** Heterothallic; Mating type(-); Mating group I A **Other strain no.:** N-13-4 **References:** 227, 228, 229, 567, 1147
- 2666 History:** < Sekimoto, Hiroyuki **Locality:** Saitama/Japan (2004-08-08) **Isolator:** Tsuchikane, Yuki **Identified by:** Tsuchikane, Yuki (2004-09-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 22°C; 60-70µmol/m²/s; 2 M **Habitat:** Freshwater (Water) **Characteristics:** Homothallic; Isogamy **Other strain no.:** kodama20

Cladophora pleurodermatum W. et G.S. West

- 449 History:** < IAM (1983) **Other collection strain no.:** IAM C-518 **Locality:** Iriomote Isl./Okinawa/Japan (1973-03-25) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 8-15µmol/m²/s; 3 M (25°C; 60-70µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Gene data:** 18S rRNA (AF352238) **Other strain no.:** R-11-20 **References:** 66, 567

Cladophora praelongum Brébisson var. *brevius* (Nordstedt) Krieger

- 450 History:** < IAM (1983) **Other collection strain no.:** IAM C-447 (=C-578) **Locality:** Nawakot/Nepal (1965-10-12) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Pond sediment) **Characteristics:** Homothallic **Other strain no.:** N-12-3 **References:** 228, 229, 235, 567
- 451 History:** < Watanabe, Masayuki **Locality:** Billethadi/Nepal (1965-12-03) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 8-15µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Pond sediment) **Characteristics:** Homothallic **Other strain no.:** N-78-8 **References:** 229, 567

Cladophora pusillum Hantzsch var. *maiis* Raciborski

- 185 History:** < IAM (1983) **Other collection strain no.:** IAM C-449 **Locality:** Billethadi/Nepal (1965-12-03) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20 °C ; 8-15µmol/m²/s; 3 M (20 °C ; 22-32µmol/m²/s) **Habitat:** Freshwater (Pond sediment) **Characteristics:** Heterothallic **Gene data:** 18S rRNA (AF352235) **Other strain no.:** N-79-19 **References:** 66, 229, 235, 567

Cladophora rostratum Ehrenberg ex Ralfs var. *subrostratum* (Krieger) Krieger

Syn. *Cladophora subrostratum* Krieger

- 338 History:** < IAM (1983) **Other collection strain no.:** IAM C-446 (=C-579) **Locality:** Kathmandu/Nepal (1968-05-18) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15µmol/m²/s; 3 M (20°C; 15-27µmol/m²/s) **Habitat:** Freshwater (Sediment) **Characteristics:** Homothallic **Other strain no.:** N-90-55 **References:** 228, 229, 235, 567

Cladophora selenastrum M.Watanabe

- 339 History:** < Watanabe, Masayuki **Locality:** Mt.Yonahadake/Okinawa/Japan (1972-10-**) **Isolator:** Ichimura, Terunobu **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 20°C; 8-15µmol/m²/s; 3 M (25°C; 60-70µmol/m²/s) **Habitat:** Freshwater (Rush field soil) **Characteristics:** Homothallic **Gene data:** 18S rRNA (AF352242) **Other strain no.:** R-9-40 **References:** 66, 241, 567, 1137, 1138

- 340 History:** < Watanabe, Masayuki **Locality:** Mt.Yonahadake/Okinawa/Japan (1972-10-**) **Isolator:** Ichimura, Terunobu **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15µmol/m²/s; 3 M (25°C; 60-70µmol/m²/s) **Habitat:** Freshwater (Rush field soil) **Characteristics:** Homothallic **Other strain no.:** R-9-42 **References:** 241, 567, 1138

Cladophora spinosporum Hodgetts var. *crassum* M.Watanabe

- 186 History:** < Watanabe, Masayuki **Locality:** Lake Akan/Hokkaido/Japan (1973-09-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Authentic strain; Homothallic **Other strain no.:** AK-46 **References:** 241, 567, 1137, 1138

- 187 History:** < IAM (1983) **Other collection strain no.:** IAM C-461 **Locality:** Mt.Yonahadake/Okinawa/Japan (1973-06-16) **Isolator:** Ichimura, Terunobu **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 20°C; 8-15µmol/m²/s; 3 M (20 °C ; 22-32µmol/m²/s) **Habitat:** Freshwater (Rush field soil) **Characteristics:** Homothallic **Gene data:** 18S rRNA (AF352241) **Other strain no.:** R-9-13 **References:** 66, 241, 567, 1137, 1138

- 341 History:** < Watanabe, Masayuki **Locality:** Mt.Yonahadake/Okinawa/Japan (1972-10-**) **Isolator:** Ichimura, Terunobu **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Rush field soil) **Characteristics:** Homothallic **Other strain no.:** R-9-12 **References:** 241, 567, 1137, 1138

Cladophora spinosporum Hodgetts var. *malaysiense* M.Watanabe

- 188 History:** < Watanabe, Masayuki **Locality:** Penang/Malaysia (1974-01-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic: Mating type(+) **Gene data:** 18S rRNA (AF352227) **Other strain no.:** M-10-1 **References:** 66, 567, 1137, 1138

- 189 History:** < Watanabe, Masayuki **Locality:** Penang/Malaysia (1974-01-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic: Mating type(-) **Other strain no.:** M-10-4 **References:** 567, 1137, 1138

Cladophora spinosporum Hodgetts var. *ryukyuense* M.Watanabe

- 191 History:** < Watanabe, Masayuki **Locality:** Iriomote Isl./Okinawa/Japan (1973-06-**) **Isolator:** Ichimura, Terunobu **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic **Gene data:** 18S rRNA (AF352240) **Other strain no.:** R-12-3 **References:** 66, 567, 1137, 1138

- 192 History:** < Watanabe, Masayuki **Locality:** Iriomote Isl./Okinawa/Japan (1973-06-**) **Isolator:** Ichimura, Terunobu **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture**

conditions: CA; 20°C; 8-15µmol/m²/s; 3 M (25°C; 60-70µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic **Other strain no.:** R-12-6 **References:** 567, 1137, 1138

- 193 **History:** < Watanabe, Masayuki **Locality:** Iriomote Isl./Okinawa/Japan (1973-06-**) **Isolator:** Ichimura, Terunobu **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic; Giang cell **Other strain no.:** R-12-2G3 **References:** 567, 1137

Closterium spinosporum Hodgetts var. *spinosporum*

- 194 **History:** < Watanabe, Masayuki **Locality:** Tsukude/Aichi/Japan (1972-10-**) **Isolator:** Ichimura, Terunobu **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CAM; 20°C; 8-15µmol/m²/s; 3 M (25°C; 60-70µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Homothallic **Gene data:** 18S rRNA (AF352224) **Other strain no.:** A-2-22 **References:** 66, 241, 567, 1137, 1138

- 195 **History:** < Watanabe, Masayuki **Locality:** Tsukude/Aichi/Japan (1972-10-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CAM; 20°C; 8-15µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic **Other strain no.:** A-7-3 **References:** 567, 1138

- 196 **History:** < Watanabe, Masayuki **Locality:** Tsukude/Aichi/Japan (1972-10-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CAM; 20°C; 8-15µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic **Other strain no.:** A-7-6 **References:** 567, 1137

- 197 **History:** < Watanabe, Masayuki **Locality:** Tsukude/Aichi/Japan (1972-10-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 20°C; 8-15µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic **Other strain no.:** A-13-4 **References:** 567, 1137, 1138

Closterium tumidum Johnson

- 198 **History:** < IAM (1983) **Other collection strain no.:** IAM C-450 (=C-580) **Locality:** Billethadi/Nepal (1965-12-03) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Pond sediment) **Characteristics:** Homothallic **Gene data:** 18S rRNA (AF352234) **Other strain no.:** N-79-11 **References:** 66, 228, 229, 235, 567

Closterium venus Kützing ex Ralfs

- 199 **History:** < Watanabe, Masayuki **Locality:** Kathmandu/Nepal (1968-**-**) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 20°C; 8-15µmol/m²/s; 3 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Pond sediment) **Gene data:** 18S rRNA (AF352236) **Other strain no.:** N-90-48 **References:** 66, 567

Closterium wallichii Turner

- 200 **History:** < IAM (1983) **Other collection strain no.:** IAM C-451 **Locality:** Kitamoto/Saitama/Japan (1969-01-**) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15µmol/m²/s; 3 M (20°C; 15-27µmol/m²/s) **Characteristics:** Homothallic **Gene data:** 18S rRNA (AF352243) **Other strain no.:** S-1-0 **References:** 66, 235, 567

- 201 **History:** < Kasai, Fumie **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-09-26) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C; 20°C; 8-15µmol/m²/s; 3 M (20°C; 15-27µmol/m²/s) **Habitat:** Freshwater (Lake water) **Characteristics:** Homothallic **Other strain no.:** F60-21 **Reference:** 567

- 202 **History:** < Watanabe, Masayuki **Locality:** Ghasa/Nepal (1965-11-23) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20 °C ; 8-15µmol/m²/s; 3 M (20 °C ; 15-27µmol/m²/s) **Habitat:** Freshwater (Sediment) **Characteristics:** Homothallic **Other strain no.:** N-63-0 **References:** 229, 567

COCCOLITHUS : Prymnesiophyceae***Coccolithus braarudii***

- 2696 History:** < RCC (2010) **Other collection strain no.:** RCC 1200 **Locality:** South Atlantic (2000-10-01) **Isolator:** Probert, I. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** K/2; 15°C; 10-18µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Other strain no.:** AC400

COCCOMYXA : Trebouxiophyceae***Coccomyxa dispar* Schmidle**

- 2252 History:** < IAM (2007) < Ishikawa, Masako **Other collection strain no.:** IAM C-137 **Isolator:** Ishikawa, Masako **Identified by:** Fukushima, Hiroshi; Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Axenic[2012 Mar] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488787); 18S rRNA (AB488788) **Other strain no.:** Ishikawa U-109
- 2353 History:** < IAM (2007) < Holm-Hansen, O. **Other collection strain no.:** IAM C-168 **Locality:** Cape Royds/Antarctica **Isolator:** Holm-Hansen, O. **Identified by:** Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20 °C ; 8-15µmol/m²/s; 3 M **Habitat:** (Dried "algal mat") **Gene data:** 18S rRNA (AB488794); 18S rRNA (AB488795) **Other strain no.:** Holm-Hansen R-1

***Coccomyxa* sp.**

- 2166 History:** < IAM (2007) < Holm-Hansen, O. **Other collection strain no.:** IAM C-169 **Locality:** Marble Point/Antarctica **Isolator:** Holm-Hansen, O. **Identified by:** Kessler, E. (1994) **Formerly identified as:** Chlorella vulgaris Beijerinck; 'Chlorella' saccharophila (Krüger) Migula **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat:** (Dried "algal peat") **Other strain no.:** Holm-Hansen M-42-a **References:** 190, 1212 **Remarks:** Cryopreserved

COCHLODINIUM : Dinophyceae***Cochlodinium* sp.**

- 2327 History:** < Sawaguchi, Tomohiro **Locality:** Shimoda Harbor/Shizuoka/Japan (1985-05-23) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 15°C; 15-22µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** SMHD-7 **Remarks:** Fragile species to transportation stresses

COELASTRUM : Chlorophyceae***Coelastrum astroideum* De Notaris**

- 129 History:** < TAC **Locality:** Lake Shoji/Yamanashi/Japan (1981-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15µmol/m²/s; 2 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater **Other strain no.:** TAC 56 (TAN-56-7) **Reference:** 567 **Remarks:** Cryopreserved
- 130 History:** < TAC **Locality:** Lake Shoji/Yamanashi/Japan (1981-08-31) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15µmol/m²/s; 2 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater **Other strain no.:** TAC 51-9A (TAN-51-9A) **Reference:** 567 **Remarks:** Cryopreserved
- 244 History:** < Watanabe, Masayuki **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-08-23) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Lake water) **Reference:** 567 **Remarks:** Cryopreserved
- 342 History:** < TAC **Locality:** Lake Kawaguchi/Yamanashi/Japan (1981-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture**

conditions: C; 20°C; 8-15 μ mol/m²/s; 2 M **Habitat:** Freshwater **Other strain no.:** TAC 54 (TAN-54-1) **Reference:** 567 **Remarks:** Cryopreserved

Coelastrum morus W. et G.S. West

- 231 **History:** < Kasai, Fumie **Locality:** Hachijo Isl./Tokyo/Japan (1984-04-18) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10 μ mol/m²/s; 3 M (25°C; 70-80 μ mol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** F78-4-2 **References:** 360, 567 **Remarks:** Cryopreserved

Coelastrum proboscideum Bohlin

- 131 **History:** < IAM (1983) **Other collection strain no.:** IAM C-344 **Locality:** Near Tukcha/Nepal (1965-11-23) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10 μ mol/m²/s; 3 M (25°C; 70-80 μ mol/m²/s) **Habitat:** Freshwater (Dry river bed) **Other strain no.:** N-63-20 **References:** 235, 567, 1159 **Remarks:** Cryopreserved

Coelastrum reticulatum (Dangeard) Senn

- 132 **History:** < TAC **Locality:** Lake Yamanaka/Yamanashi/Japan (1981-10-26) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 μ mol/m²/s; 2 M (25°C; 70-80 μ mol/m²/s) **Habitat:** Freshwater **Other strain no.:** TAC 53-5A (TAN-53-5A) **Reference:** 567 **Remarks:** Cryopreserved

Coelastrum reticulatum (Dangeard) Senn var. *reticulatum*

- 245 **History:** < Kasai, Fumie **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-10-04) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10 μ mol/m²/s; 3 M (25°C; 70-80 μ mol/m²/s) **Habitat:** Freshwater **Other strain no.:** F63-3 **Reference:** 567 **Remarks:** Cryopreserved

COMPSOPOGON : Compsopogonophyceae

Compsopogon coeruleus (Balbis) Montagne

- 1461 **History:** < Higa, Atsushi **Locality:** Higashinire River/Ibaraki/Japan (2004-05-16) **Isolator:** Higa, Atsushi **Identified by:** Higa, Atsushi (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 μ mol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; VU **Other strain no.:** HNC2
- 1462 **History:** < Higa, Atsushi **Locality:** Inawashiro, Kawakami/Fukushima/Japan (2004-05-10) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 μ mol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; VU **Other strain no.:** KWC12 **Reference:** 142

COMPSOPOGONOPSIS : Compsopogonophyceae

Compsopogonopsis japonica Chihara

- 1463 **History:** < Kawachi, Masanobu **Locality:** Ishigaki Isl./Okinawa/Japan (2001-10-09) **Isolator:** Iwaki, Hiroyuki **Identified by:** Kumano, Shigeru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12 μ mol/m²/s; 20 D **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** ISI-1 **Reference:** 142

COOLIA : Dinophyceae

Coolia monotis Meunier

- 343 **History:** < Suda, Shoichiro **Locality:** Hachijo Isl./Tokyo/Japan (1984-04-17) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 15-22 μ mol/m²/s; 3 M **Habitat:** Marine (Seawater) **Other strain no.:** 8-1 **Remarks:** Unstable; Fragile species to transportation stresses

- 615 **History:** < Murata, Michio **Locality:** Motobu/Okinawa/Japan (1993-06-06) **Isolator:** Kobayashi,

Hidetaka **Identified by:** Fukuyo, Yasuo **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 32-40 μ mol/m²/s; 1 M **Habitat:** Marine (Plant) **Characteristics:** Toxic **Other strain no.:** CM-01 **Remarks:** Toxic; Fragile species to transportation stresses

- 1833 **History:** < TKB **Locality:** Naha/Okinawa/Japan (2005-01-22) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 40-50 μ mol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-260 **Remarks:** Fragile species to transportation stresses

CORYNOPLASTIS : Rhodellophyceae

Corynoplastis japonica Yokoyama, Scott, Zuccarello, Kajikawa, Hara et West

- 2662 **History:** < Yokoyama, Akiko **Locality:** Tobishima Isl./Yamagata/Japan (1997-04-09) **Isolator:** Iwataki, Mitsunori **Identified by:** Yokoyama, Akiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 13-18 μ mol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Authentic strain **Gene data:** 18S rRNA (AB045605) **Other strain no.:** TB4-T2

COSMARIUM : Charophyceae

Cosmarium askenasyi Schmidle

- 768 **History:** < Kasai, Fumie **Locality:** near Cairns/Queensland/Australia (1988-09-01) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 μ mol/m²/s; 3 M (25°C; 70-80 μ mol/m²/s) **Habitat:** Freshwater (Lake water) **Characteristics:** Heterothallic; Crosses with NIES-769 **Other strain no.:** 88-8-37

- 769 **History:** < Kasai, Fumie **Locality:** near Cairns/Queensland/Australia (1988-09-01) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 μ mol/m²/s; 3 M (25°C; 70-80 μ mol/m²/s) **Habitat:** Freshwater (Lake water) **Characteristics:** Heterothallic; Crosses with NIES-768 **Other strain no.:** 88-8-38

- 770 **History:** < Kasai, Fumie **Locality:** near Cairns/Queensland/Australia (1988-09-01) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 μ mol/m²/s; 3 M (25°C; 70-80 μ mol/m²/s) **Habitat:** Freshwater (Lake water) **Characteristics:** Heterothallic; Crosses with NIES-771 **Other strain no.:** 88-8-39

- 771 **History:** < Kasai, Fumie **Locality:** near Cairns/Queensland/Australia (1988-09-01) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70 μ mol/m²/s; 3 M (25°C; 70-80 μ mol/m²/s) **Habitat:** Freshwater (Lake water) **Characteristics:** Heterothallic; Crosses with NIES-770 **Other strain no.:** 88-8-40

Cosmarium contractum Kirchner

- 133 **History:** < TAC **Locality:** Lake Yamanaka/Yamanashi/Japan (1981-10-26) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15 μ mol/m²/s; 2 M (20°C; 15-27 μ mol/m²/s) **Habitat:** Freshwater **Other strain no.:** TAC 53-2 (TAN-53-2) **Reference:** 567

Cosmarium dilatum Lütkemüller in Järnefeld et Grönblad

- 839 **History:** < Gontcharov, A. **Locality:** Ryoanji Temple/Kyoto/Japan (1998-06-30) **Isolator:** Gontcharov, A. **Identified by:** Gontcharov, A. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 22°C; 55-70 μ mol/m²/s; 3 M (25°C; 70-80 μ mol/m²/s) **Habitat:** (Freshwater) **Reference:** 127

Cosmarium hians Borge

- 452 **History:** < Watanabe, Michiko H. **Locality:** Lake Yamanaka/Yamanashi/Japan (1981-06-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 μ mol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Other strain no.:** YAMA-Cos-4 **Reference:** 567

COSMOCLADIUM : Charophyceae*Cosmocladium constrictum* (Archer) Archer

- 248 History:** < Kasai, Fumie **Locality:** Lake Biwa/Shiga/Japan (1983-12-13) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15µmol/m²/s; 3 M (20°C; 15-27µmol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** F75-2 **Reference:** 567

CRYPTOGLENA : Euglenophyceae*Cryptoglena pigra* Ehrenberg

- 1407 History:** < TKB **Locality:** Tsukuba, Kuribara/Ibaraki/Japan (2004-09-08) **Isolator:** Yubuki, Naoji **Identified by:** Yubuki, Naoji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** URO; DY-V; 20°C; 40-50µmol/m²/s; 20 D **Habitat:** Freshwater **Other strain no.:** TKB-137 (NY0156)

Cryptoglena skujae Marin et MelkonianSyn. *Phacus agilis* Skuja

- 387 History:** < Watanabe, Makoto M. **Locality:** Kashiwa/Chiba/Japan (1986-09-16) **Isolator:** Watanabe, Makoto M.; Ichimura, Terunobu **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** MAF-6; AF-6; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** PhD-3 **Reference:** 143

CRYPTOMONAS : Cryptophyceae*Cryptomonas acuta* Butcher

- 697 History:** < Erata, Mayumi < Hara, Yoshiaki < CCAP **Other collection strain no.:** CCAP 979/10 **Locality:** N.Wales/U.K. **Isolator:** Butcher, R. W. **Identified by:** Butcher, R. W. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Authentic strain **Gene data:** 18S rRNA (AB240956); Nuclear actin-1 (AB126018); Nuclear actin-2 (AB126019) **Other strain no.:** M01 **Reference:** 85

Cryptomonas irregularis Butcher

- 698 History:** < Erata, Mayumi < Hara, Yoshiaki < CCAP **Other collection strain no.:** CCAP 979/7 **Locality:** Plymouth/Devon/U.K. (1960-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Authentic strain **Other strain no.:** M04 **Reference:** 85

Cryptomonas ovata Ehrenberg

- 274 History:** < Ishimitsu, Mayumi **Locality:** Tsuchiura/Ibaraki/Japan (1982-10-28) **Isolator:** Ishimitsu, Mayumi **Identified by:** Ishimitsu, Mayumi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 15°C; 20-30µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Gene data:** 18S rRNA (AB073109); 18S rRNA (AB240952); CO1 (AB009419) **Other strain no.:** #00046 **References:** 142, 208, 245, 261, 284, 1034, 1248

- 275 History:** < Ishimitsu, Mayumi **Locality:** Tsuchiura/Ibaraki/Japan (1982-09-10) **Isolator:** Ishimitsu, Mayumi **Identified by:** Ishimitsu, Mayumi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 15°C; 20-30µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** #00042 **References:** 14, 284, 360, 760, 1036, 1203, 1204

Cryptomonas paramaecium (Ehrenberg) Hoef-Emden et MelkonianSyn. *Chilomonas paramaecium* Ehrenberg

- 715 History:** < Erata, Mayumi **Locality:** Sugadaira Moor/Nagano/Japan (1985-11-10) **Isolator:** Erata, Mayumi **Identified by:** Erata, Mayumi **States:** Unialgal; Clonal; Axenic[2012 Nov] **Culture conditions:** CYT; 15°C; 8-15µmol/m²/s; 2 M **Habitat:** Freshwater (Bog water) **Characteristics:** Heterotrophic **Gene data:** 18S rRNA (AB073108); 18S rRNA (AB240955) **Other strain no.:** #00210 **References:** 84, 142, 1034

- 766 History:** < Erata, Mayumi **Locality:** Lake Jusanko/Aomori/Japan (1987-07-**) **Isolator:** Erata,

Mayumi **Identified by:** Erata, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CYT; 15°C; 8-15 μ mol/m²/s; 2 M **Habitat:** Brackish water (Water) **Characteristics:** Heterotrophic **Other strain no.:** #00318

767 **History:** < Erata, Mayumi **Locality:** Lake Jusanko/Aomori/Japan (1987-07-**) **Isolator:** Erata, Mayumi **Identified by:** Erata, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CYT; 15°C; 8-15 μ mol/m²/s; 2 M **Habitat:** Brackish water (Water) **Characteristics:** Heterotrophic **Other strain no.:** #00319

Cryptomonas platyuris Skuja

276 **History:** < Ishimitsu, Mayumi **Locality:** Higashihiroshima/Hiroshima/Japan (1983-08-23) **Isolator:** Ishimitsu, Mayumi **Identified by:** Ishimitsu, Mayumi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 10°C; 15-20 μ mol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** #00096 **References:** 142, 208, 284

344 **History:** < Ishimitsu, Mayumi **Locality:** Higashihiroshima/Hiroshima/Japan (1983-08-23) **Isolator:** Ishimitsu, Mayumi **Identified by:** Ishimitsu, Mayumi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 10°C; 15-20 μ mol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** #00103 **Reference:** 284

Cryptomonas rostriformis Skuja

277 **History:** < Ishimitsu, Mayumi **Locality:** Hongo/Hiroshima/Japan (1983-10-19) **Isolator:** Ishimitsu, Mayumi **Identified by:** Ishimitsu, Mayumi **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** VT; 15°C; 20-30 μ mol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Gene data:** 18S rRNA (AB240953) **Other strain no.:** #00148 **References:** 142, 284

278 **History:** < Ishimitsu, Mayumi **Locality:** Hongo/Hiroshima/Japan (1983-10-19) **Isolator:** Ishimitsu, Mayumi **Identified by:** Ishimitsu, Mayumi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 15°C; 20-30 μ mol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** #00154 **Reference:** 284

345 **History:** < Ishimitsu, Mayumi **Locality:** Sugadaira Moor/Nagano/Japan (1982-07-31) **Isolator:** Ishimitsu, Mayumi **Identified by:** Ishimitsu, Mayumi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 15°C; 20-30 μ mol/m²/s; 2 M **Habitat:** Freshwater (Bog water) **Other strain no.:** #00006 **Reference:** 284

1327 **History:** < Erata, Mayumi **Locality:** Sugadaira Moor/Nagano/Japan (1985-11-10) **Isolator:** Erata, Mayumi **Identified by:** Erata, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VT; 15°C; 35-50 μ mol/m²/s; 2 M **Habitat:** Freshwater (Bog water) **Other strain no.:** #00266

Cryptomonas tetrapternoidosa Skuja

279 **History:** < Ishimitsu, Mayumi **Locality:** Higashihiroshima, Hachihonmatsu/Hiroshima/Japan (1983-08-23) **Isolator:** Ishimitsu, Mayumi **Identified by:** Ishimitsu, Mayumi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 10°C; 15-20 μ mol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Gene data:** 18S rRNA (AM051199); 18S rRNA (AJ566183); 5.8S-ITS2-28S (AJ715455); rbcL (AM051220) **Other strain no.:** #00099 **References:** 208, 284

280 **History:** < Ishimitsu, Mayumi **Locality:** Sugadaira Moor/Nagano/Japan (1982-07-31) **Isolator:** Ishimitsu, Mayumi **Identified by:** Ishimitsu, Mayumi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 10°C; 15-20 μ mol/m²/s; 2 M **Habitat:** Freshwater (Bog water) **Gene data:** 18S rRNA (AB240954) **Other strain no.:** #00014 **References:** 283, 284, 360

281 **History:** < Ishimitsu, Mayumi **Locality:** Minamiizu/Shizuoka/Japan (1983-05-13) **Isolator:** Ishimitsu, Mayumi **Identified by:** Ishimitsu, Mayumi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 10°C; 15-20 μ mol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** #00073 **References:** 284, 565

282 **History:** < Ishimitsu, Mayumi **Locality:** Shishizuka-ohike Pond/Ibaraki/Japan (1982-09-10) **Isolator:** Ishimitsu, Mayumi **Identified by:** Ishimitsu, Mayumi **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** VT; 15°C; 20-30 μ mol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** #00056 **References:** 28, 29, 30, 142, 284, 464, 487, 488

- 346 **History:** < Ishimitsu, Mayumi **Locality:** Sugadaira Moor/Nagano/Japan (1982-07-31) **Isolator:** Ishimitsu, Mayumi **Identified by:** Ishimitsu, Mayumi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 10°C; 15-20 μ mol/m²/s; 2 M **Habitat:** Freshwater (Bog water) **Other strain no.:** #00009 **Reference:** 284
- 347 **History:** < Ishimitsu, Mayumi **Locality:** Minamiizu/Shizuoka/Japan (1983-05-13) **Isolator:** Ishimitsu, Mayumi **Identified by:** Ishimitsu, Mayumi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 10°C; 15-20 μ mol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** #00072 **Reference:** 284
- 348 **History:** < Ishimitsu, Mayumi **Locality:** Higashihiroshima/Hiroshima/Japan (1983-08-23) **Isolator:** Ishimitsu, Mayumi **Identified by:** Ishimitsu, Mayumi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 10°C; 15-20 μ mol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** #00109 **Reference:** 284

CYANIDIOSCHYZON : Cyanidiophyceae

Cyanidioschyzon merolae De Luca, Taddei et Varano

- 1332 **History:** < Kuroiwa, Tsuneyoshi **Locality:** Sardinia Isl./Italy **Isolator:** Toda, Kyoko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** M-Allen; 37°C; 15-25 μ mol/m²/s; 2 M **Habitat:** Hot spring (Water) **Characteristics:** Acidophilic; Thermophilic **Gene data:** aladh (AB159599); atpC (AB159600); gnd (AB159595); gnd (AB159596); Hsp70 (AB095185); Hsp90 (AB095179); Hsp90 (AB095186); Mitochondrial DNA (D89861); Nuclear DNA (chromosome 1-20) (AP006483-AP006502); pgk (AB159598); Plastid DNA (AB002583); psbO (AB159597); RPB1 (AB095180); RPB1 (AB095187); RpS8b (AB095181); RpS8b (AB095188); TPI (AB095182); TPI (AB095189); VatA (AB095183); VatA (AB095190); VatB (AB095184); VatB (AB095191) **Other strain no.:** 10D **References:** 61, 142, 509, 730, 731, 732, 744, 790, 791, 793 **Remarks:** Fragile species to temperature changes
- 1804 **History:** < Tanaka, Kan **Locality:** Sardinia Isl./Italy **Isolator:** Toda, Kyoko **Identified by:** Ohnuma, Mio **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** M-Allen; 37°C; 15-25 μ mol/m²/s; 2 M **Habitat:** Hot spring **Characteristics:** Acidophilic; Pigmentation paler than wild type **Gene data:** Chromosome unassigned contigs (AP006600-AP006614); Mitochondrial DNA (D89861); Nuclear DNA (chromosome 1-20) (AP006483-AP006502); Plastid DNA (AB002583) **Other strain no.:** MO **Remarks:** Fragile species to temperature changes
- 1805 **History:** < Tanaka, Kan **Locality:** Sardinia Isl./Italy **Isolator:** Toda, Kyoko **Identified by:** Minoda, Ayumi **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** M-Allen (+ U); 37 °C ; 15-25 μ mol/m²/s; 2 M **Habitat:** Hot spring **Characteristics:** Acidophilic; Mutant (Uracil-required; 5-FOA tolerant) **Gene data:** Chromosome unassigned contigs (AP006600-AP006614); Mitochondrial DNA (D89861); Nuclear DNA (chromosome 1-20) (AP006483-AP006502); Plastid DNA (AB002583) **Other strain no.:** M4 **Remarks:** Fragile species to temperature changes
- 1806 **History:** < Tanaka, Kan **Locality:** Sardinia Isl./Italy **Isolator:** Toda, Kyoko **Identified by:** Inoue, Takayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** M-Allen (+ U); 37 °C ; 15-25 μ mol/m²/s; 2 M **Habitat:** Hot spring **Characteristics:** Acidophilic; Mutant (Uracil-required; 5-FOA tolerant) **Gene data:** Chromosome unassigned contigs (AP006600-AP006614); Mitochondrial DNA (D89861); Nuclear DNA (chromosome 1-20) (AP006483-AP006502); Plastid DNA (AB002583) **Other strain no.:** HUT1-1 **Remarks:** Fragile species to temperature changes

CYANIDIUM : Cyanidiophyceae

Cyanidium caldarium (Tilden) Geitler

- 2137 **History:** < IAM (2007) < Nagashima, Hideyuki (1991) **Other collection strain no.:** IAM R-11 **Locality:** Nikko-Yumoto Hot spring/Tochigi/Japan **Isolator:** Fukuda, I. **Identified by:** Fukushima, Hiroshi; Nagashima, Hideyuki **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** M-Allen; 37°C; 13-18 μ mol/m²/s; 3 M **Habitat:** Hot spring **Other strain no.:** RK-1 **References:** 140, 603, 792

CYANOPHORA : Glaucomaeeae*Cyanophora paradoxa* Korshikov

- 547 History:** < Kikuchi, Tadatoshi < UTEX **Other collection strain no.:** UTEX 555 **Locality:** U.K. **Isolator:** Pringsheim, E. G. **Identified by:** Pringsheim, E. G. **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C; 20°C; 8-15µmol/m²/s; 2 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Lake water) **Characteristics:** Alkaline water **Gene data:** FtsZ (AB183875); psaD (AJ132477) **References:** 246, 435, 713, 729, 892, 943, 1181
- 763 History:** < Suda, Shoichiro **Locality:** Mitsukaido/Ibaraki/Japan (1987-01-17) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** CSi; 20°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Soil) **Other strain no.:** S117 **Reference:** 142

Cyanophora tetricyanea Korshikov

- 764 History:** < Suda, Shoichiro **Locality:** Mitsukaido/Ibaraki/Japan (1987-01-17) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** CSi; 20°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Soil) **Other strain no.:** S118 **Reference:** 142

CYCLOTELLA : Bacillariophyceae*Cyclotella meneghiniana* Kützing

- 803 History:** < Kasai, Fumie **Locality:** Mitsukaido/Ibaraki/Japan (1993-05-03) **Isolator:** Kasai, Fumie **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi; 15°C; 10-18µmol/m²/s; 1 M **Habitat:** Freshwater (River water) **Other strain no.:** 506-26 **Reference:** 356
- 804 History:** < Kasai, Fumie **Locality:** Mitsukaido/Ibaraki/Japan (1993-05-18) **Isolator:** Kasai, Fumie **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi; 15°C; 10-18µmol/m²/s; 1 M **Habitat:** Freshwater (River water) **Other strain no.:** 518-39 **Reference:** 356
- 805 History:** < Kasai, Fumie **Locality:** Mitsukaido/Ibaraki/Japan (1993-06-13) **Isolator:** Kasai, Fumie **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi; 15°C; 10-18µmol/m²/s; 1 M **Habitat:** Freshwater (River water) **Other strain no.:** 613-2 **Reference:** 356
- 2363 History:** < Shirokawa, Yuka **Locality:** Arakawa River/Tokyo/Japan (2006-10-15) **Isolator:** Shirokawa, Yuka **Identified by:** Mayama, Shigeki (2006-10-15) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi; 20°C; 15-22µmol/m²/s; 3 M **Habitat:** Brackish water (River water) **Characteristics:** Euryhaline **Other strain no.:** HK
- 2364 History:** < Shirokawa, Yuka **Locality:** Meguro River/Tokyo/Japan (2006-07-01) **Isolator:** Shirokawa, Yuka **Identified by:** Mayama, Shigeki (2006-10-15) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi; 20°C; 15-22µmol/m²/s; 3 M **Habitat:** Brackish water (River water) **Characteristics:** Euryhaline **Other strain no.:** MG
- 2365 History:** < Shirokawa, Yuka **Locality:** Saitama/Japan (2006-07-10) **Isolator:** Shirokawa, Yuka **Identified by:** Mayama, Shigeki (2006-10-15) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi; 20°C; 15-22µmol/m²/s; 3 M **Habitat:** Freshwater (Lake water) **Characteristics:** Euryhaline **Other strain no.:** SR-0
- 2367 History:** < Shirokawa, Yuka **Locality:** Saitama/Japan (2006-07-10) **Isolator:** Shirokawa, Yuka **Identified by:** Mayama, Shigeki (2006-10-15) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi; 20°C; 15-22µmol/m²/s; 3 M **Habitat:** Freshwater (Lake water) **Characteristics:** Euryhaline **Other strain no.:** SR-2
- 2368 History:** < Shirokawa, Yuka **Locality:** Saitama/Japan (2006-07-10) **Isolator:** Shirokawa, Yuka **Identified by:** Mayama, Shigeki (2006-10-15) **States:** Unialgal; Clonal; Non-axenic **Culture**

conditions: CSi; 20°C; 15-22µmol/m²/s; 3 M **Habitat:** Freshwater (Lake water) **Characteristics:** Euryhaline **Other strain no.:** SR-3

CYLINDROCYSTIS : Charophyceae

Cylindrocystis brebissonii (Ralfs) De Bary var. *brebissonii*

349 History: < IAM **Other collection strain no.:** IAM C-354 **Locality:** Lake Ohnuma/Hokkaido/Japan (1967-06-15) **Isolator:** Haga, Masaru **Identified by:** Haga, Masaru **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 4 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Sediment) **Characteristics:** Homothallic **Other strain no.:** 6801-68 **Reference:** 567

Cylindrocystis crassa De Bary

2283 History: < IAM (2007) **Other collection strain no.:** IAM C-334 **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M

Cylindrocystis sp.

2284 History: < IAM (2007) **Other collection strain no.:** IAM C-630 (=C-382) **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M

2301 History: < IAM (1983) **Other collection strain no.:** IAM C-353 **Locality:** Ebetsu/Hokkaido/Japan (1967-05-24) **Isolator:** Haga, Masaru **Identified by:** Haga, Masaru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 4 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (High moor pool soil) **Characteristics:** Homothallic **Other strain no.:** 6801-15

2302 History: < IAM (1983) **Other collection strain no.:** IAM C-351 **Locality:** Ebetsu/Hokkaido/Japan (1967-05-24) **Isolator:** Haga, Masaru **Identified by:** Haga, Masaru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 4 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (High moor pool soil) **Characteristics:** Homothallic **Other strain no.:** 6801-01

2303 History: < IAM (1983) **Other collection strain no.:** IAM C-350 **Locality:** Lake Akan/Hokkaido/Japan (1967-03-14) **Isolator:** Haga, Masaru **Identified by:** Haga, Masaru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 4 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Sediment) **Characteristics:** Homothallic **Other strain no.:** 6707-01

CYLINDROSPERMOPSIS : Cyanophyceae

Cylindrospermopsis raciborskii (Woloszynska) Seenayya et S.Raju

930 History: < Otsuka, Shigeto **Locality:** Shinobazu-no-ike Pond/Tokyo/Japan (2000-07-04) **Isolator:** Otsuka, Shigeto **Identified by:** Otsuka, Shigeto **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 25°C; 20-30µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** CYL1

991 History: < Yongmanitchai, W. **Locality:** Gonoike Pond/Ibaraki/Japan (2001-07-**) **Isolator:** Chonudomkul, D. **Identified by:** Yongmanitchai, W. **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** CT; 23°C; 45-55µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Gene data:** 16S rRNA (AB115487) **Other strain no.:** KJA1 **Reference:** 52

992 History: < Yongmanitchai, W. **Locality:** Gonoike Pond/Ibaraki/Japan (2001-07-**) **Isolator:** Chonudomkul, D. **Identified by:** Yongmanitchai, W. **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** CT; 23°C; 45-55µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Gene data:** 16S rRNA (AB115488) **Other strain no.:** KJA2 **Reference:** 52

993 History: < Yongmanitchai, W. **Locality:** Gonoike Pond/Ibaraki/Japan (2001-07-**) **Isolator:** Chonudomkul, D. **Identified by:** Yongmanitchai, W. **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** CT; 23°C; 45-55µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Gene**

- data:** 16S rRNA (AB115489) **Other strain no.:** KJA3 **Reference:** 52
- 994 History:** < CCMP **Other collection strain no.:** CCMP 1973 **Locality:** Florida/U.S.A. (1999-10-03) **Isolator:** Andersen, Robert A. **Identified by:** Andersen, Robert A. **Culture conditions:** CT; 23°C; 45-55µmol/m²/s; 1 M **Habitat:** Freshwater
- 1040 History:** < Yongmanitchai, W. **Locality:** Shinobazu-no-ike Pond/Tokyo/Japan **Isolator:** Chonudomkul, D. **Identified by:** Yongmanitchai, W. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 23°C; 45-55µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Gene data:** 16S rRNA (AB115485) **Other strain no.:** CRJ1 **Reference:** 52
- 1041 History:** < Yongmanitchai, W. **Locality:** Shinobazu-no-ike Pond/Tokyo/Japan **Isolator:** Chonudomkul, D. **Identified by:** Yongmanitchai, W. **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** CT; 23°C; 45-55µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Gene data:** 16S rRNA (AB115486) **Other strain no.:** CRJ2 **Reference:** 52
- 1259 History:** < Sano, Tomoharu **Locality:** Gonoike Pond/Ibaraki/Japan (2002-08-30) **Isolator:** Sano, Tomoharu **Identified by:** Sano, Tomoharu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 45-55µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** GOU-CR-1
- 1260 History:** < Sano, Tomoharu **Locality:** Gonoike Pond/Ibaraki/Japan (2002-08-30) **Isolator:** Sano, Tomoharu **Identified by:** Sano, Tomoharu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 45-55µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** GOU-CR-2
- 1261 History:** < Sano, Tomoharu **Locality:** Shinobazu-no-ike Pond/Tokyo/Japan **Isolator:** Sano, Tomoharu **Identified by:** Sano, Tomoharu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 45-55µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** SHI-CR-3
- 1262 History:** < Sano, Tomoharu **Locality:** Shinobazu-no-ike Pond/Tokyo/Japan **Isolator:** Sano, Tomoharu **Identified by:** Sano, Tomoharu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 45-55µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** SHI-CR-5

CYLINDROSPERMUM : Cyanophyceae

Cylindrospermum muscicola Kützing

- 2102 History:** < IAM (2007) < Ishikawa, Masako **Other collection strain no.:** IAM M-32 **Isolator:** Ishikawa, Masako **Identified by:** Fukushima, Hiroshi; Maruyama, Ko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** BG-11 (agar); 20°C; 13-18µmol/m²/s; 3 M **Other strain no.:** Ishikawa X2W-N-F

CYLINDROTHECA : Bacillariophyceae

Cylindrotheca closterium (Ehrenberg) Reimann et Lewin

- 1045 History:** < Mayama, Shigeki **Locality:** Tskuba University, Shimoda Marine Research Center/Shizuoka/Japan (2001-05-10) **Isolator:** Takahashi, Yuko **Identified by:** Mayama, Shigeki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 15°C; 10-18µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Epilithic

Cylindrotheca fusiformis Reimann et Lewin

- 1046 History:** < Mayama, Shigeki < CCMP **Other collection strain no.:** CCMP 343 **States:** Unialgal **Culture conditions:** f/2; 15 °C ; 10-18µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Characteristics:** Benthic

***Cylindrotheca* sp.**

- 1047 History:** < Mayama, Shigeki **Locality:** Futtsu/Chiba/Japan (2001-05-28) **Isolator:** Takahashi, Yuko **Identified by:** Mayama, Shigeki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:**

f/2; 15°C; 10-18µmol/m²/s; 2 M **Habitat**: Marine (Plant) **Characteristics**: Epiphytic

DESMODESMUS : Chlorophyceae

Desmodesmus abundans (Kirchner) Hegewald
Syn. Scenedesmus abundans (Kirchner) Chodat

- 685 History:** < Katagiri, Masayuki < IAM **Other collection strain no.:** IAM C-101 **Locality:** Japan **Isolator:** Lewin, Ralph A. **Identified by:** Confirmed at NIES by DNA sequencing **Formerly identified as:** Chlorella fusca Shihira et Krauss var. fusca **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20 °C ; 4-10µmol/m²/s; 3 M (25 °C ; 70-80µmol/m²/s) **Characteristics:** Authentic strain **References:** 424, 425, 436, 498, 499, 567, 1211

Desmodesmus serratus (Corda) Friedl et Hegewald
Syn. Scenedesmus serratus (Corda) Bohlin

- 97 History:** < TAC **Locality:** Lake Shoji/Yamanashi/Japan (1981-08-31) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki; Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20 °C ; 4-10µmol/m²/s; 3 M (25 °C ; 70-80µmol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** TAC 51-3C (TAN-51-3C) **Reference:** 567 **Remarks:** Cryopreserved

Desmodesmus sp.

- 96 History:** < TAC **Locality:** Lake Shoji/Yamanashi/Japan (1981-08-31) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki; Re-identified at NIES by DNA sequencing **Formerly identified as:** Scenedesmus quadricauda (Turpin) Brébisson sensu Chodat **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20 °C ; 4-10µmol/m²/s; 3 M (25 °C ; 70-80µmol/m²/s) **Habitat:** Freshwater (Lake water) **Gene data:** atpB (AB084305); CO1 (D63658); CO1 (AB011524); psaB (AB084339); rbcL (AB084332) **Other strain no.:** TAC 51-3B (TAN-51-3B) **References:** 188, 567, 625, 740, 1135, 1236 **Remarks:** Cryopreserved

- 2277 History:** < IAM (2007) < Watanabe, Atsushi **Other collection strain no.:** IAM C-70 **Isolator:** Watanabe, Atsushi **Identified by:** Fukushima, Hiroshi; Re-identified at NIES by DNA sequencing **Formerly identified as:** Scenedesmus nanus Chodat **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M

- 2278 History:** < IAM (2007) < Watanabe, Atsushi **Other collection strain no.:** IAM C-71 **Isolator:** Watanabe, Atsushi **Identified by:** Fukushima, Hiroshi; Re-identified at NIES by DNA sequencing **Formerly identified as:** Scenedesmus nanus Chodat **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M

Desmodesmus subspicatus (Chodat) Hegewald et Schmidt
Syn. Scenedesmus guttinskii Chodat var. heterospina Bodrogközy

- 797 History:** < Kasai, Fumie **Locality:** inside NIES/Ibaraki/Japan (1992-06-17) **Isolator:** Kasai, Fumie **Identified by:** Nakano, Taketo; Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 4-10µmol/m²/s; 4 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Herbicide (simetryn) susceptible **Other strain no.:** B8-7 **Reference:** 354

- 798 History:** < Kasai, Fumie **Locality:** inside NIES/Ibaraki/Japan (1992-06-17) **Isolator:** Kasai, Fumie **Identified by:** Nakano, Taketo; Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 4-10µmol/m²/s; 4 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Herbicide (simetryn) susceptible **Other strain no.:** B8-16 **Reference:** 354

- 799 History:** < Kasai, Fumie **Locality:** inside NIES/Ibaraki/Japan (1992-06-17) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie; Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 4-10µmol/m²/s; 4 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Herbicide (simetryn) susceptible **Other strain no.:** B8-23 **Reference:** 354

- 800 History:** < Kasai, Fumie **Locality:** inside NIES/Ibaraki/Japan (1992-06-17) **Isolator:** Kasai,

Fumie **Identified by:** Nakano, Taketo; Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 4-10 μ mol/m²/s; 4 M (25°C; 70-80 μ mol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Herbicide (simetryn) tolerant **Other strain no.:** B3-12 **Reference:** 354

801 History: < Kasai, Fumie **Locality:** inside NIES/Ibaraki/Japan (1992-06-17) **Isolator:** Kasai, Fumie **Identified by:** Nakano, Taketo; Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 4-10 μ mol/m²/s; 4 M (25°C; 70-80 μ mol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Herbicide (simetryn) tolerant **Other strain no.:** B3-15 **Reference:** 354

802 History: < Kasai, Fumie **Locality:** inside NIES/Ibaraki/Japan (1992-06-17) **Isolator:** Kasai, Fumie **Identified by:** Nakano, Taketo; Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 4-10 μ mol/m²/s; 4 M (25°C; 70-80 μ mol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Herbicide (simetryn) tolerant **Other strain no.:** B12-2 **References:** 353, 354, 1239, 1240, 1241, 1242

DESMOTETRA : Chlorophyceae

Desmotetra delicata (S.Watanabe) S.Watanabe
Syn. *Chlorosarcinopsis delicata* S.Watanabe

153 History: < Watanabe, Shin **Locality:** Kyoto/Japan (1975-04-07) **Isolator:** Watanabe, Shin **Identified by:** Watanabe, Shin **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10 μ mol/m²/s; 3 M (25°C; 70-80 μ mol/m²/s) **Habitat:** Terrestrial (Soil) **Characteristics:** Authentic strain **Other strain no.:** KUC3-6 **References:** 567, 1186

DEVELOPAYELLA : Bigyromonadea

Developayella elegans Tong

1388 History: < TKB **Locality:** Chiba Harbor/Chiba/Japan (2002-11-29) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2 + Wheat; 15°C; 0 μ mol/m²/s; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Heterotrophic **Other strain no.:** TKB-017 (NY0124)

DICTYOCHLOROPSIS : Trebouxiophyceae

Dictyochloropsis irregularis Nakano et Isagi

378 History: < Nakano, Taketo **Locality:** Akkeshi/Hokkaido/Japan (1982-07-25) **Isolator:** Isagi, Yuji **Identified by:** Nakano, Taketo **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10 μ mol/m²/s; 3 M (25°C; 70-80 μ mol/m²/s) **Habitat:** Terrestrial (Plant (Bark of *Picea yezoensis*)) **Characteristics:** Aerial; Epiphytic **Other strain no.:** CCHU-2227 **References:** 567, 655 **Remarks:** Cryopreserved

DICTYOSPHAERIUM : Trebouxiophyceae

Dictyosphaerium pulchellum Wood

453 History: < Niizyama, Yuko **Locality:** Lake Kasumigaura/Ibaraki/Japan (1988-12-11) **Isolator:** Yanai, Takanori **Identified by:** Niizyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 15°C; 15-22 μ mol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Reference:** 567

DIMORPHOCOCCUS : Chlorophyceae

Dimorphococcus lunatus A.Brown

134 History: < Kasai, Fumie **Locality:** Ozegahara/Gunma/Japan (1983-08-29) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 20°C; 4-10 μ mol/m²/s; 2 M (25°C; 70-80 μ mol/m²/s) **Habitat:** Freshwater (Bog water) **Other strain no.:** 34-5 **Reference:** 567

- 135 **History:** < Kasai, Fumie **Locality:** Tsuchiura/Ibaraki/Japan (1983-10-03) **Isolator:** Kasai, Fumie
Identified by: Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 4-10µmol/m²/s; 2 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Pond water) **Other strain no.:** F-61-4 **References:** 567, 1159

DINOBRYON : Chrysophyceae

Dinobryon divergens Imhof

- 284 **History:** < Kasai, Fumie **Locality:** Lake Biwa/Shiga/Japan (1983-12-13) **Isolator:** Kasai, Fumie
Identified by: Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6/2; 15°C; 20-30µmol/m²/s; 4 M **Habitat:** Freshwater (Lake water) **Other strain no.:** F-75-26

DITYLUM : Bacillariophyceae

Ditylum brightwellii (T.West) Grunow et Heurck

- 350 **History:** < Sawaguchi, Tomohiro **Locality:** Bentenjima/Shizuoka/Japan (1985-05-23) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 10°C; 6-12µmol/m²/s; 2M **Habitat:** Marine (Seawater) **Other strain no.:** KBB-10

DOCIDIUM : Charophyceae

Docidium undulatum Bailey var. *undulatum*

- 285 **History:** < Kasai, Fumie **Locality:** Ozegahara/Fukushima/Japan (1983-08-29) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** SW; 20°C; 8-15µmol/m²/s; 3 M **Habitat:** Freshwater (Bog water) **Other strain no.:** 41-11

DUNALIELLA : Chlorophyceae

Dunaliella bioculata Butcher

- 2253 **History:** < IAM (2007) < Hara, Yoshiaki (1989) < UTEX (1983-1986) **Other collection strain no.:** IAM C-523; CCAP 19/4; UTEX LB 199; Prague 281a; SAG 19-4 **Locality:** Russia **Isolator:** Mainx, F. **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; 20 °C ; 8-15µmol/m²/s; 3 M **Habitat:** Salt water **Characteristics:** Authentic strain **References:** 33, 913, 914

Dunaliella parva Lerche

- 2254 **History:** < IAM (2007) < Hara, Yoshiaki (1989) < UTEX (1980?) **Other collection strain no.:** IAM C-527; UTEX 1983 **Isolator:** Ben-Amotz, A. **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; 20°C; 8-15µmol/m²/s; 3 M **Reference:** 1005

Dunaliella peircei Nicolai

- 2255 **History:** < IAM (2007) < Hara, Yoshiaki (1989) < UTEX (1980?) **Other collection strain no.:** IAM C-528; CCAP 19/2; SAG 19-2; UTEX LB 2192; IUCC 295 **Locality:** Lake Marina/California/U.S.A. **Isolator:** Nicolai, E. **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; 20°C; 8-15µmol/m²/s; 3 M

Dunaliella primolecta Butcher

- 2256 **History:** < IAM (2007) < Hara, Yoshiaki (1989) < UTEX (1980?) **Other collection strain no.:** IAM C-525; CCAP 11/34; UTEX LB 1000; SG 183.30; UTEX L 2355 **Locality:** Plymouth/Devon/U.K. **Isolator:** Gross **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; 20°C; 8-15µmol/m²/s; 3 M **References:** 794, 1249

Dunaliella salina (Dunal) Teodoresco

- 2257 **History:** < IAM (2007) < Hara, Yoshiaki (1990) < UTEX (1980?) **Other collection strain no.:** IAM C-522; CCAP 19/3; SAG 19-3; UTEX LB 200 **Locality:** EUN (Soviet Union) **Isolator:** Mainx, F. **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** f/2; 20 °C ;

8-15 μ mol/m²/s; 3 M **Habitat:** Salt water **References:** 472, 1005

Dunaliella tertiolecta Butcher

- 2258 History:** < IAM (2007) < Hara, Yoshiaki (1989) < UTEX Other collection strain no.: IAM C-524; UTEX LB 999; CCAP 19/6B **Locality:** Oslofjord/Norway **Isolator:** Foyn, B. **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** f/2; 20°C; 8-15 μ mol/m²/s; 3 M **References:** 34, 972, 1005, 1006, 1249

DYSNECTES : Metamonada incertae sedis

Dysnectes brevis Yubuki, Inagaki, Nakayama et Inouye

- 1843 History:** < TKB **Locality:** Yamakawa Harbor/Kagoshima/Japan (2005-03-15) **Isolator:** Yubuki, Naoji **Identified by:** Yubuki, Naoji (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2 + mTYGM-9 + Rice; SUY 1/10 + mTYGM-9 + Rice; 15°C; 0 μ mol/m²/s; 1 M **Habitat:** (Seawater) **Characteristics:** Heterotrophic; Benthic; Authentic strain **Other strain no.:** TKB-272 **Reference:** 1270

ECHINOSPHAERIDIUM : Chlorophyceae

Echinospaeridium nordstedtii Lemmermann

- 137 History:** < Kasai, Fumie **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-08-23) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10 μ mol/m²/s; 3 M (25°C; 70-80 μ mol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** F-56-3 **References:** 360, 567, 1159

EMILIANIA : Prymnesiophyceae

Emiliania huxleyi (Lohmann) Hay et Mohler

- 837 History:** < Kawachi, Masanobu **Locality:** Great Barrier Reef/Australia (1990-11-**) **Isolator:** Inouye, Isao **Identified by:** Inouye, Isao **States:** Unialgal; Clonal; Non-axenic; Coccolith(+)[2013 Jan] **Culture conditions:** mIMR; MNK; 20°C; 20-30 μ mol/m²/s; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Gene data:** EhSEP2 (AB205027) **Other strain no.:** EH-2 **References:** 62, 296, 565, 746, 747, 748, 909, 910, 911, 933, 934, 935, 936, 957, 958, 961, 962 **Remarks:** Unstable

- 1310 History:** < Kawachi, Masanobu **Locality:** South Pacific (2002-08-11) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic; Coccolith(+/-)[2013 Jan] **Culture conditions:** ESM; 20°C; 22-32 μ mol/m²/s; 14-20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** MH 9

- 1311 History:** < Kawachi, Masanobu **Locality:** Bearing Sea (2002-08-02) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic; Coccolith(+)[2013 Jan] **Culture conditions:** MNK; 15°C; 10-18 μ mol/m²/s; 14-20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** MH 27

- 1312 History:** < Kawachi, Masanobu **Locality:** Bearing Sea (2002-08-02) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic; Coccolith(+)[2013 Jan] **Culture conditions:** MNK; 15°C; 10-18 μ mol/m²/s; 14-20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** MH 28

- 1313 History:** < Kawachi, Masanobu **Locality:** East China Sea (2003-08-06) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic; Coccolith(+/-)[2013 Jan] **Culture conditions:** MNK; 20°C; 22-32 μ mol/m²/s; 14-20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** MH 74

- 1314 History:** < Kawachi, Masanobu **Locality:** East China Sea (2003-08-06) **Isolator:** Kawachi, Masanobu **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic; Coccolith(+/-)[2013 Jan] **Culture conditions:** MNK; 20°C; 22-32 μ mol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** YK3-87

- 2697 History:** < RCC (2010) **Other collection strain no.:** RCC 1216 **Locality:** Tasman Sea/Australia (1998-09-01) **Isolator:** Probert, I. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** K/2; 15°C; 10-18µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** AC472

EOCERCOMONAS : Sarcomonadea

Eocercomonas echina Howe et Cavalier-Smith

- 2449 History:** < Bass, David **Locality:** U.K. (2006-**-**) **Isolator:** Howe, Alexis T. **Identified by:** Bass, David; Howe, Alexis T. (2008-**-**) **Culture conditions:** AF-6 + Wheat; 20°C; 0µmol/m²/s; 2-3 M **Habitat:** Terrestrial (Plant (Ivy leaf)) **Characteristics:** Heterotrophic; Authentic strain; Resting spore forming **Other strain no.:** IVY19 **Reference:** 32

EPIPYXIS : Chrysophyceae

Epipyxis glabra (Matvienko) Hilliard

- 1826 History:** < TKB **Locality:** Hyotaro-ike Pond/Ibaraki/Japan (2004-05-**) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 20-30µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Characteristics:** Mixotrophic **Other strain no.:** TKB-124

EREMOSPHAERA : Trebouxiophyceae

Eremosphaera gigas (Archer) Fott et Kalina

- 379 History:** < IAM **Other collection strain no.:** IAM C-338 **Locality:** Osaka/Japan (1968-11-10) **Isolator:** Ichimura, Terunobu **Identified by:** Nakano, Taketo **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Other strain no.:** O-2 **References:** 235, 567, 1159 **Remarks:** Cryopreserved

Eremosphaera viridis De Bary

- 380 History:** < Kasai, Fumie **Locality:** Ozegahara/Fukushima/Japan (1983-08-30) **Isolator:** Kasai, Fumie **Identified by:** Nakano, Taketo **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CAM; 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Pond water) **Other strain no.:** 43-23 **Reference:** 567

- 643 History:** < Nozaki, Hisayoshi **Locality:** Miyatoko Mire/Fukushima/Japan (1992-04-27) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27µmol/m²/s; 2 M **Habitat:** Freshwater (Bog water) **Other strain no.:** 92-604-E-5 **Reference:** 567

- 644 History:** < Nozaki, Hisayoshi **Locality:** Miyatoko Mire/Fukushima/Japan (1992-04-27) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27µmol/m²/s; 2 M **Habitat:** Freshwater (Bog water) **Other strain no.:** 92-604-E-3 **Reference:** 567

ESQUAMULA : Imbricatea

Esquamula lacrimiformis Shiratori, Yabuki et Ishida

- 2745 History:** < Shiratori, Takashi **Locality:** Miyagi/Japan (2007-02-02) **Isolator:** Yabuki, Akinori **Identified by:** Shiratori, Takashi (2012-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20 °C ; 0µmol/m²/s; 14 D **Habitat:** Marine (Sand) **Characteristics:** Heterotrophic; Benthic **Gene data:** 18S rRNA (AB714270); 28S rRNA (AB714271) **Other strain no.:** YPF708 **Reference:** 967

EUASTRUM : Charophyceae

Euastrum diverrucosum Gontcharov et M.M. Watanabe

Syn. *Euastrum englerii* Schmidle var. *madagascariense* Bourrelly et Mangium

- 840 History:** < Gontcharov, A. **Locality:** Hirosawa-ike Pond/Kyoto/Japan (1998-06-30) **Isolator:** Gontcharov, A. **Identified by:** Gontcharov, A. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CAM; 22°C; 55-70µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Pond water) **Reference:** 127

***Euastrum turgidum* Wallich**

- 772 History:** < Kasai, Fumie **Locality:** Ishigaki Isl./Okinawa/Japan (1984-03-21) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Lake water) **Characteristics:** Heterothallic; Crosses with NIES-773 **Other strain no.:** 84-15-75

- 773 History:** < Kasai, Fumie **Locality:** Ishigaki Isl./Okinawa/Japan (1984-03-21) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Lake water) **Characteristics:** Heterothallic; Crosses with NIES-772 **Other strain no.:** 84-15-76

***EUCAMPIA* : Bacillariophyceae**

***Eucampia* sp.**

- 2668 History:** < Hagiwara, Tomiji **Locality:** Chiba/Japan (2009-02-09) **Isolator:** Hagiwara, Tomiji **Identified by:** Hagiwara, Tomiji (2009-10-06) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 15°C; 10-18µmol/m²/s; 1 M **Habitat:** Marine (Seawater)

***EUDORINA* : Chlorophyceae**

***Eudorina cylindrica* Korshikov**

- 722 History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1197 **Locality:** Iowa/U.S.A. **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Soil) **Characteristics:** Heterothallic **Gene data:** atpB (AB014033); psaA (AB044210); psaB (AB044441); psbC (AB044493); rbcL (D86833) **References:** 567, 716, 733, 738, 1208

***Eudorina elegans* Ehrenberg**

- 351 History:** < Suda, Shoichiro **Locality:** Lake Biwa/Shiga/Japan (1983-12-13) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic[2012 Nov] **Culture conditions:** CA; 20°C; 15-22µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Homothallic **Other strain no.:** B-Eud-6 **References:** 374, 567, 973

***Eudorina elegans* Ehrenberg var. *carteri* (G.M. Smith) Goldstein**

- 721 History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1212 **Locality:** Kentucky/U.S.A. **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20 °C ; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Characteristics:** Homothallic; Monoecious **Gene data:** atpB (AB014012); psaA (AB044202); psaA (AB044203); psaB (AB044438); psbC (AB044487); psbC (AB044488); rbcL (D88806) **References:** 567, 662, 717, 733, 738

Eudorina elegans* Ehrenberg var. *elegans

- 456 History:** < Nozaki, Hisayoshi **Locality:** Imperial Palace/Tokyo/Japan (1977-09-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20°C; 15-22µmol/m²/s; 1 M **Habitat:** Freshwater (Moat water) **Characteristics:** Heterothallic; Mating type(male); Crosses with NIES-457 **Gene data:** atpB (AB014009); psaA (AB044199); psaB (AB044435); psbC (AB044485); rbcL (D63432) **Other strain no.:** A-5 (m) **References:** 567, 691, 714, 715, 733, 738, 740

- 457 History:** < Nozaki, Hisayoshi **Locality:** Imperial Palace/Tokyo/Japan (1977-09-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20°C; 15-22µmol/m²/s; 1 M **Habitat:** Freshwater (Moat water) **Characteristics:**

Heterothallic; Mating type (female); Crosses with NIES-456 **Other strain no.:** I-14 (f) **References:** 567, 691

717 History: < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1193 **Locality:** Indiana/U.S.A. **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20 °C ; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Pond soil) **Characteristics:** Heterothallic **Gene data:** atpB (AB047071); rbcL (D88803) **References:** 567, 662, 717, 1208

718 History: < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1195 **Locality:** Indiana/U.S.A. **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Pond soil) **Characteristics:** Heterothallic **Gene data:** atpB (AB047072); rbcL (D88810) **References:** 567, 717

719 History: < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1199 **Locality:** Indiana/U.S.A. **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Pond soil) **Characteristics:** Heterothallic **Gene data:** atpB (AB047073); rbcL (D88804) **References:** 567, 717

720 History: < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1205 **Locality:** Indiana/U.S.A. **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Heterothallic **Gene data:** atpB (AB014010); psaA (AB044200); psaA (AB044201); psaB (AB044436); psaB (AB044437); psbC (AB044486); rbcL (D88805) **References:** 567, 717, 733, 738

Eudorina elegans Ehrenberg var. *synoica* Goldstein

458 History: < Nozaki, Hisayoshi **Locality:** Yokohama, Midori-ku/Kanagawa/Japan (1980-01-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20 °C ; 15-22µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic; Monoecious **Gene data:** rbcL (D88807) **Other strain no.:** 04427-1 **References:** 567, 697, 717

568 History: < Nozaki, Hisayoshi **Locality:** Kathmandu/Nepal (1986-09-22) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 15-27µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic; Monoecious **Gene data:** atpB (AB014011); rbcL (D88808) **Other strain no.:** 7914-E-6 **References:** 567, 698, 717, 738

Eudorina illinoiensis (Kofoid) Pascher

Syn. *Pleodorina illinoiensis* Kofoid

459 History: < Nozaki, Hisayoshi **Locality:** Kawasaki, Saiwai-ku/Kanagawa/Japan (1984-01-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20 °C ; 15-22µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type (female); Crosses with NIES-460 **Other strain no.:** 5607-E-14 (f) **References:** 567, 694, 728

460 History: < Nozaki, Hisayoshi **Locality:** Kawasaki, Saiwai-ku/Kanagawa/Japan (1984-01-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20 °C ; 15-22µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type (male); Crosses with NIES-459 **Gene data:** atpB (AB014013); psaA (AB044198); psaB (AB044434); psbC (AB044484); rbcL (D63433) **Other strain no.:** 5630-E-3 (m) **References:** 567, 694, 714, 715, 733, 738

723 History: < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 808 **Locality:** Missouri/U.S.A. **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20 °C ; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Soil) **Characteristics:** Heterothallic **Gene data:** atpB (AB047069); rbcL (D88809) **References:** 567, 717, 1208

2259 History: < IAM (2007) < Nozaki, Hisayoshi **Other collection strain no.:** IAM C-596 **Locality:** Kawasaki/Kanagawa/Japan (1994-04-09) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi (1994-05-**) **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** AF-6; 20°C; 8-15µmol/m²/s; 3 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic;

Mating type (female) **Other strain no.:** 94-409-E-10

- 2260 History:** < IAM (2007) < Nozaki, Hisayoshi **Other collection strain no.:** IAM C-597 **Locality:** Kawasaki/Kanagawa/Japan (1994-04-09) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi (1994-05-**) **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** AF-6; 20°C; 8-15µmol/m²/s; 3 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type(male) **Other strain no.:** 94-409-E-11

Eudorina minodii (Chodat) Nozaki et Krienitz

- 856 History:** < Nozaki, Hisayoshi **Locality:** Lake Altglobsow/Brandenburg/Germany (1997-07-27) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Homothallic; Dioecious; Anisogamy **Gene data:** atpB (AB047068); rbcL (AB047074); rbcL (AB047075); rbcL (AB047076) **Other strain no.:** 970728-E-8 **Reference:** 722

Eudorina peripheralis (Goldstein) T.K. Yamada

Syn. *Eudorina unicocca* G.M. Smith var. *peripheralis* Goldstein

- 726 History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1218 **Locality:** British Columbia/Canada **Identified by:** Nozaki, Hisayoshi; Yamada, Toshihiro (Reidentify) **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Road side ditch) **Characteristics:** Heterothallic **Gene data:** atpB (AB047070); rbcL (D86830) **References:** 567, 716, 1208, 1209

Eudorina unicocca G.M. Smith

- 724 History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 737 **Locality:** Indiana/U.S.A. **Identified by:** Nozaki, Hisayoshi; Yamada, Toshihiro (Reidentify) **Formerly identified as:** *Eudorina unicocca* G.M. Smith var. *unicocca* **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater **Characteristics:** Heterothallic **Gene data:** atpB (AB014008); psaA (AB044204); psaA (AB044205); psaA (AB044206); psaB (AB044439); psbC (AB044489); psbC (AB044490); rbcL (D86829) **References:** 567, 716, 733, 738, 1208, 1209

- 725 History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1215 **Locality:** Ohio/U.S.A. **Identified by:** Nozaki, Hisayoshi; Yamada, Toshihiro (Reidentify) **Formerly identified as:** *Eudorina unicocca* G.M. Smith var. *unicocca* **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20 °C ; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Soil) **Characteristics:** Heterothallic **Gene data:** atpB (AB014007); psaA (AB044207); psaA (AB044208); psaA (AB044209); psaB (AB044440); psbC (AB044491); psbC (AB044492); rbcL (D63434) **References:** 567, 715, 733, 738, 1208, 1209

- 1855 History:** < Nozaki, Hisayoshi **Locality:** Lake Sagami/Kanagawa/Japan (1999-06-01) **Isolator:** Nozaki, Hisayoshi **Identified by:** Yamada, Toshihiro (2007-01-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Resting spore forming **Other strain no.:** 990601-IE-5

- 1856 History:** < Nozaki, Hisayoshi **Locality:** Lake Sagami/Kanagawa/Japan (1999-06-01) **Isolator:** Nozaki, Hisayoshi **Identified by:** Yamada, Toshihiro (2007-01-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Resting spore forming **Other strain no.:** 990601-IE-6

- 1857 History:** < Nozaki, Hisayoshi **Locality:** Lake Tsukui/Kanagawa/Japan (2005-07-20) **Isolator:** Yamada, Toshihiro **Identified by:** Yamada, Toshihiro (2007-01-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Resting spore forming **Other strain no.:** TKI-C-1

- 1858 History:** < Nozaki, Hisayoshi **Locality:** Lake Tsukui/Kanagawa/Japan (2005-07-20) **Isolator:** Yamada, Toshihiro **Identified by:** Yamada, Toshihiro (2007-01-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Resting spore forming **Other strain no.:** TKI-C-2 **References:** 613, 1208, 1209

EUGLENA : Euglenophyceae***Euglena clara*** Skuja

- 253 History:** < Suda, Shoichiro **Locality:** Higashiyata River/Ibaraki/Japan (1983-07-02) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-22µmol/m²/s; 1 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (River sediment) **Other strain no.:** USI-21 **Reference:** 137

Euglena gracilis Klebs

- 47 History:** < IAM (1983) **Other collection strain no.:** IAM E-3 **Locality:** Japan **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** HUT (semi-solid); 20°C; 4-10µmol/m²/s; 1 M (25°C; 70-80µmol/m²/s) **Characteristics:** Material for Vitamin B₁₂ bioassay **References:** 235, 319, 460, 1067, 1125
- 48 History:** < IAM (1983) **Other collection strain no.:** IAM E-6; UTEX 753 **Locality:** Japan **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** HUT (semi-solid); 20°C; 4-10µmol/m²/s; 1 M (25°C; 70-80µmol/m²/s) **Characteristics:** Material for Vitamin B₁₂ bioassay **Gene data:** OPRT-OMPDC (AB185845); PAC1 (AB126955); PAC2 (AB126956) **Other strain no.:** Z strain **References:** 78, 79, 80, 81, 82, 167, 168, 169, 235, 248, 265, 319, 448, 482, 489, 496, 500, 506, 507, 564, 589, 817, 818, 819, 820, 824, 825, 826, 828, 829, 830, 831, 945, 999, 1000, 1039, 1071, 1081, 1083, 1091, 1100, 1245, 1246, 1247, 1263, 1273

Euglena gracilis Klebs var. ***bacillaris*** Pringsheim

- 49 History:** < IAM (1983) **Other collection strain no.:** IAM E-2 (=E-10) **Locality:** Japan **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** HUT; 20°C; 4-10µmol/m²/s; 2 M (25°C; 70-80µmol/m²/s) **References:** 235, 293, 319, 682, 1125

Euglena mutabilis Schmitz

- 286 History:** < Suda, Shoichiro **Locality:** Takatori River/Ibaraki/Japan (1984-12-11) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 15-22µmol/m²/s; 1 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Sediment) **Characteristics:** Bioindicator **Reference:** 143

Euglena sp.

- 2345 History:** < Nozaki, Hisayoshi **Locality:** Lake Nojiri (depth 3.5m)/Nagano/Japan (1992-05-14) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 10°C; 15-20µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Other strain no.:** 92-517-E-1

Euglena viridis Ehrenberg

- 2149 History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM E-11 (=E-9); UTEX 85; CCAP 1224/17A **Isolator:** Pringsheim, E. G. **States:** Unialgal; Clonal; Axenic[2012 Mar] **Culture conditions:** HUT (semi-solid); 20°C; 40-50µmol/m²/s; 20 D

EUNOTIA : Bacillariophyceae***Eunotia pectinalis*** (Kützing) Rabenhorst var. ***minor*** (Kützing) Rabenhorst

- 461 History:** < Kasai, Fumie **Locality:** Mt.Tsukuba, Hatorisawa/Ibaraki/Japan (1987-04-17) **Isolator:** Kasai, Fumie **Identified by:** Takamura, Noriko **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSi; 15°C; 15-22µmol/m²/s; 4 M **Habitat:** Freshwater (River water) **Other strain no.:** (1)-16 **Reference:** 1018

EUTREPTIELLA : Euglenophyceae***Eutreptiella gymnastica*** Thronsdse

- 381 History:** < KAGAWA **Locality:** Yashima Bay/Kagawa/Japan (1982-10-14) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture**

conditions: f/2; ESM; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Gene data:** CO1 (AB000136); PAC1 (AB126953); PAC2 (AB126954) **Other strain no.:** KGW-63-1 **References:** 143, 262, 448, 1014

Eutreptiella sp.

- 2305 History:** < Suda, Shoichiro **Locality:** Onagawa Bay/Miyagi/Japan (1984-08-28) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM2; 20°C; 15-22µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** 8280G27-10
- 2325 History:** < Suda, Shoichiro **Locality:** Harima-nada/Japan (1988-08-**) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** 813H-4

FIBROCAPSA : Raphidophyceae

Fibrocapsa japonica Toriumi et Takano

- 136 History:** < KAGAWA **Locality:** Tsuda Bay/Kagawa/Japan (1978-07-19) **Isolator:** Yuki, Katsuhisa **Identified by:** Yuki, Katsuhisa **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Other strain no.:** KGW-20-2 **References:** 245, 495, 1115 **Remarks:** Fragile species to transportation stresses
- 462 History:** < Sawaguchi, Tomohiro **Locality:** Hasaki/Ibaraki/Japan (1987-05-09) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** ESM; 20 °C ; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Characteristics:** Red tide **Other strain no.:** HASS-8 **Reference:** 9 **Remarks:** Fragile species to transportation stresses
- 560 History:** < Honjo, Tsuneo **Locality:** Mikawa Bay/Aichi/Japan **Isolator:** Toriumi, Saburo **Identified by:** Honjo, Tsuneo **States:** Unialgal; Non-clonal; Axenic[2013 Jan] **Culture conditions:** ESM; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Remarks:** Fragile species to transportation stresses
- 605 History:** < Iwasaki, Hideo **Locality:** Seto Inland Sea/Yamaguchi/Japan (1970-08-**) **Isolator:** Iwasaki, Hideo **Identified by:** Takano, Hideaki **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; 20 °C ; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Reference:** 115 **Remarks:** Fragile species to transportation stresses
- 1303 History:** < Kawachi, Masanobu **Locality:** East China Sea (2003-08-01) **Isolator:** Kawachi, Masanobu **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 32-40µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** YK03-75 **Reference:** 137 **Remarks:** Fragile species to transportation stresses
- 1829 History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2005-07-**) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi (2006-**_**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Characteristics:** Red tide **Other strain no.:** TKB-301 **Remarks:** Fragile species to transportation stresses

Fibrocapsa sp.

- 1378 History:** < TKB **Locality:** Tokyo Bay/Kanagawa/Japan (2003-09-30) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** f/2; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** TKB-067 (AK-09) **Remarks:** Fragile species to transportation stresses

FISCHERELLA : Cyanophyceae

Fischerella major Gomont

- 592 History:** < Hagiwara, Tomiji **Locality:** Yukawa Hot Spring/Iwate/Japan (1990-09-09) **Isolator:** Hagiwara, Tomiji **Identified by:** Hagiwara, Tomiji **States:** Unialgal; Clonal; Non-axenic **Culture**

conditions: CB; 20°C; 4-10 μ mol/m²/s; 2 M (25°C; 70-80 μ mol/m²/s) **Habitat:** Hot spring (Water)
Characteristics: Benthic **Other strain no.:** Yu-50 **References:** 192, 221, 567, 1219

FLECTOMONAS : Sarcomonadea

Flectomonas lenta Howe, Bass, Vickerman, Chao et Cavalier-Smith

- 2507 History:** < Howe, Alexis T. **Locality:** Wytham Wood/U.K. (2006-**-**) **Isolator:** Howe, Alexis T. **Identified by:** Howe, Alexis T. (2006-**-**) **Culture conditions:** AF-6 + Wheat; 20°C; 0 μ mol/m²/s; 2-3 M **Habitat:** Terrestrial (Soil) **Characteristics:** Heterotrophic; Authentic strain; Resting spore forming **Other strain no.:** WA28

FLORENCIELLA : Dictyochophyceae

Florenciella parvula Eikrem

- 2684 History:** < RCC (2010) **Other collection strain no.:** RCC 446; CCMP 2471 **Locality:** English Channel/Brittany Coast/France (2000-04-12) **Isolator:** Le Gall, F.; Le Gall, F. (Re-isolation) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 10-18 μ mol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Authentic strain **Other strain no.:** RA000412-1-1

FRAGILARIA : Bacillariophyceae

Fragilaria capucina Desmazières

- 391 History:** < Sawaguchi, Tomohiro **Locality:** Lake Kasumigaura/Ibaraki/Japan (1985-04-25) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Idei, Masahiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi; 15°C; 20-30 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** KEB-24

GEPHYROCAPSA : Prymnesiophyceae

Gephyrocapsa oceanica Kamptner

- 353 History:** < Sawaguchi, Tomohiro **Locality:** Tsushima Isl./Nagasaki/Japan (1986-03-13) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Inouye, Isao **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 15-22 μ mol/m²/s; 20 D **Habitat:** Marine (Seawater) **Gene data:** CO1 (AB000118) **Other strain no.:** TMCO-2 **References:** 142, 187, 434, 676
- 838 History:** < Kawachi, Masanobu **Locality:** Mutsu Bay/Aomori/Japan (1990-11-**) **Isolator:** Kawachi, Masanobu **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic; Coccolith(+)[2013 Jan] **Culture conditions:** mIMR; MNK; 20°C; 20-30 μ mol/m²/s; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** GO-01 **References:** 62, 910, 958, 961 **Remarks:** Unstable
- 1000 History:** < Kawachi, Masanobu **Other collection strain no.:** CCMP 2054 **Locality:** Miyake Isl., Chotaro-ike Pond/Tokyo/Japan (1999-11-23) **Isolator:** Kawachi, Masanobu **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic; Coccolith(+/-)[2013 Jan] **Culture conditions:** MNK; 20°C; 20-30 μ mol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide
- 1315 History:** < Kawachi, Masanobu **Locality:** Hachijo Isl., Yaene Harbor/Tokyo/Japan (2002-01-22) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic; Coccolith(+/-)[2013 Jan] **Culture conditions:** MNK; 20°C; 22-32 μ mol/m²/s; 14-20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** MH 38
- 1316 History:** < Kawachi, Masanobu **Locality:** East China Sea (2003-08-06) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic; Coccolith(+/-)[2013 Jan] **Culture conditions:** MNK; 20°C; 22-32 μ mol/m²/s; 14-20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** MH 63
- 1317 History:** < Kawachi, Masanobu **Locality:** East China Sea (2003-08-06) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic;

- Coccolith(+)[2013 Jan] **Culture conditions:** MNK; 20°C; 22-32µmol/m²/s; 14-20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** MH 64
- 1318 History:** < Kawachi, Masanobu **Locality:** East China Sea (2003-08-06) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic; Coccolith(+)[2013 Jan] **Culture conditions:** MNK; 20°C; 22-32µmol/m²/s; 14-20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** MH 73
- 1319 History:** < Kawachi, Masanobu **Locality:** East China Sea (2003-07-29) **Isolator:** Kawachi, Masanobu **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic; Coccolith(+/-)[2013 Jan] **Culture conditions:** MNK; 20°C; 22-32µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** YK3-7
- 1328 History:** < TKB **Locality:** Hachijo Isl., Yaene Harbor/Tokyo/Japan (2002-12-13) **Isolator:** Yoshida, Masaki **Identified by:** Yoshida, Masaki (2003-**-**) **States:** Unialgal; Clonal; Non-axenic; Coccolith(+/-)[2013 Jan] **Culture conditions:** MNK; 20°C; 25-40µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** TKB-001 (ym-01)
- 1329 History:** < TKB **Locality:** Seto Inland Sea/Okayama/Japan (2002-08-**) **Isolator:** Yoshida, Masaki **Identified by:** Yoshida, Masaki (2002-**-**) **States:** Unialgal; Clonal; Non-axenic; Coccolith(+)[2013 Jan] **Culture conditions:** MNK; 20°C; 25-40µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** TKB-061 (ym-06)
- 2699 History:** < RCC (2010) **Other collection strain no.:** RCC 1314 **Locality:** Atlantic (French Coast)/France (1998-06-01) **Isolator:** Probert, I. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** IMK; 15°C; 10-18µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** AC279
- 2700 History:** < RCC (2010) **Other collection strain no.:** RCC 1315 **Locality:** Atlantic (French Coast)/France (1998-06-01) **Isolator:** Probert, I. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 10-18µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** ARC1(N)

GIRAUDYOPSIS : Chrysomerophyceae

Giraudyopsis sp.

- 1862 History:** < TKB **Locality:** Awaji Isl./Hyogo/Japan (2005-12-**) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** IMK; 20°C; 15-22µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-334

GLAUCOCYSTIS : Glaucophyceae

Glaucocystis nostochinearum Itzigsohn

- 966 History:** < Kasai, Fumie **Locality:** Renge-numa/Fukushima/Japan (1987-08-11) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** F(6)-5
- 1369 History:** < TKB **Locality:** Kanazawa, Kakuma-cho/Ishikawa/Japan (2003-07-01) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TKB-066 (AK-08)
- 1961 History:** < TKB **Locality:** Kanazawa/Ishikawa/Japan (2003-07-01) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Other strain no.:** TKB-333
- 2141 History:** < IAM (2007) < UTEX (1989) **Other collection strain no.:** IAM M-124; UTEX 64; SAG B 229-1; CCAP 229/1; CAUP H2801; CAUP O101 **Isolator:** Lewin, Ralph A. **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** CSi; 20°C; 13-18µmol/m²/s; 3 M

GLENODINIOPSIS : Dinophyceae*Glenodiniopsis uliginosa* (Schilling) Woloszynska

- 463 History:** < Sawaguchi, Tomohiro **Locality:** Shizukuishi/Iwate/Japan (1984-09-10) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** AF-6/2; 20°C; 40-50µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TM3D-6 **Reference:** 143 **Remarks:** Unstable; Fragile species to transportation stresses

GLOEOCAPSA : Cyanophyceae*Gloeocapsa decorticans* (A.Brown) P.Richter

- 931 History:** < Otsuka, Shigeto **Locality:** Kanagawa/Japan (2000-04-21) **Isolator:** Otsuka, Shigeto **Identified by:** Otsuka, Shigeto **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 25°C; 20-30µmol/m²/s; 1 M **Habitat:** Freshwater (Soil) **Characteristics:** Benthic **Other strain no.:** GLC2 **References:** 139, 383

GLOEOMONAS : Chlorophyceae*Gloeomonas lateperforata* (Skuja) Ettl

- 464 History:** < Kasai, Fumie **Locality:** Tsukuba/Ibaraki/Japan (1982-11-15) **Isolator:** Kasai, Fumie **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 22-32µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Gene data:** atpB (AB504761) **Other strain no.:** 1/4 **References:** 567, 736

GLOSSOMASTIX : Pinguiphycaceae*Glossomastix chrysoplasta* O'Kelly

- 1002 History:** < Kawachi, Masanobu < CCMP **Other collection strain no.:** CCMP 1537 **Locality:** Phillip Bay/Victoria/Australia **Isolator:** O'Kelly, Charles J. **Identified by:** O'Kelly, Charles J. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 22°C; 20-30µmol/m²/s; 14 D **Habitat:** Marine **Characteristics:** Attached **Reference:** 137

- 1302 History:** < Kogame, Kazuhiro **Locality:** Kumano/Mie/Japan (2001-03-27) **Isolator:** Kogame, Kazuhiro **Identified by:** Kogame, Kazuhiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 32-40µmol/m²/s; 14 D **Habitat:** Marine (Seaweed) **Characteristics:** Attached **Other strain no.:** GLOSSO

Glossomastix sp.

- 2503 History:** < Inouye, Isao **Locality:** Shizuoka/Japan (2004-05-**) **Isolator:** Chikuni, Tomoko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** IMK; 20°C; 10-15µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-256

- 2504 History:** < Inouye, Isao **Locality:** Itsuura Beach/Ibaraki/Japan (2005-**-**) **Isolator:** Chikuni, Tomoko **Identified by:** Chikuni, Tomoko (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 10-15µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-257

GOMPHONEMA : Bacillariophyceae*Gomphonema angustatum* (Kützing) Rabenhorst var. *obtusatum* (Kützing) Grunow

- 620 History:** < Kasai, Fumie **Locality:** Mt.Tsukuba, Hatoriwa/Ibaraki/Japan (1987-04-17) **Isolator:** Kasai, Fumie **Identified by:** Takamura, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi; 15°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (River sediment) **Other strain no.:** 1-36 **Reference:** 1018 **Remarks:** Poor growth

Gomphonema gracile Ehrenberg var. *gracile*

- 465 History:** < Kasai, Fumie **Locality:** Watarase River System/Gunma/Japan (1987-08-15) **Isolator:**

Kasai, Fumie **Identified by:** Takamura, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi; 15°C; 15-22 μ mol/m²/s; 2 M **Habitat:** Freshwater (River water) **Other strain no.:** Ast-1-1 **Reference:** 1018

Gomphonema parvulum Kützing var. *parvulum*

- 466 **History:** < Kasai, Fumie **Locality:** Shirai River/Hokkaido/Japan (1987-07-02) **Isolator:** Kasai, Fumie **Identified by:** Takamura, Noriko **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSi; 10°C; 10-15 μ mol/m²/s; 2 M **Habitat:** Freshwater (River water) **Other strain no.:** Tst-1-18 **Reference:** 1018
- 467 **History:** < Kasai, Fumie **Locality:** Shirai River/Hokkaido/Japan (1987-07-02) **Isolator:** Kasai, Fumie **Identified by:** Takamura, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi; 10°C; 10-15 μ mol/m²/s; 2 M **Habitat:** Freshwater (River water) **Other strain no.:** Tst-4-3 **Reference:** 1018

GONATOZYGON : Charophyceae

Gonatozygon brebissonii De Bary

- 138 **History:** < IAM (1983) **Locality:** Lake Kasumigaura/Ibaraki/Japan (1974-11-**) **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 μ mol/m²/s; 4 M (20°C; 15-27 μ mol/m²/s) **Habitat:** Freshwater **Other strain no.:** KAS-4-43 **Reference:** 567
- 139 **History:** < TAC **Locality:** Lake Shoji/Yamanashi/Japan (1981-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 μ mol/m²/s; 4 M (20°C; 15-27 μ mol/m²/s) **Habitat:** Freshwater **Other strain no.:** TAC 56-1 (TAN-56-1) **Reference:** 567

Gonatozygon monotaenium De Bary

- 247 **History:** < Kasai, Fumie **Locality:** Tsukiyono/Gunma/Japan (1984-06-01) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 μ mol/m²/s; 3 M (20°C; 15-27 μ mol/m²/s) **Habitat:** Freshwater (Paddy water) **Characteristics:** Homothallic **Other strain no.:** 84-25-109
- 287 **History:** < TAC **Locality:** Lake Yamanaka/Yamanashi/Japan (1981-10-26) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 8-15 μ mol/m²/s; 2 M (20°C; 15-27 μ mol/m²/s) **Habitat:** Freshwater **Other strain no.:** TAC 53-3 (TAN-53-3) **Reference:** 567

GONIOMONAS : Goniomonadea

Goniomonas amphinema Larsen et Patterson

- 1371 **History:** < TKB **Locality:** Hachijo Isl./Tokyo/Japan (2002-12-13) **Isolator:** Yubuki, Naoji **Identified by:** Yubuki, Naoji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2 + Wheat; 15°C; 0 μ mol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Heterotrophic **Other strain no.:** TKB-022 (NY0129)

Goniomonas pacifica Larsen et Patterson

- 1372 **History:** < TKB **Locality:** Hachijo Isl./Tokyo/Japan (2002-12-13) **Isolator:** Yoshida, Masaki **Identified by:** Yubuki, Naoji (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2 + Wheat; 15°C; 0 μ mol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Heterotrophic **Other strain no.:** TKB-003 (ym-03)

Goniomonas sp.

- 1374 **History:** < TKB **Locality:** Tateyama, Sakata/Chiba/Japan (2003-01-22) **Isolator:** Yubuki, Naoji **Identified by:** Yubuki, Naoji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2 + Wheat; 15°C; 0 μ mol/m²/s; 1 M **Habitat:** Marine (Water) **Characteristics:** Heterotrophic **Other strain no.:** TKB-024 (NY0135)

Goniomonas truncata (Fresenius) Stein

1373 History: < TKB **Locality:** Mito/Ibaraki/Japan (2002-05-15) **Isolator:** Yubuki, Naoji **Identified by:** Yubuki, Naoji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** URO + Wheat; 15°C; 0µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Heterotrophic **Other strain no.:** TKB-015 (NY0120)

GONIUM : Chlorophyceae

Gonium maiaprilis Hayama, Nakada, Hamaji et Nozaki

2455 History: < Hayama, Mahoko **Locality:** Fukuoka/Japan (2004-03-28) **Isolator:** Hayama, Mahoko **Identified by:** Hayama, Mahoko; Nozaki, Hisayoshi (2009-04-06) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 18-26µmol/m²/s; 14 D **Habitat:** Freshwater (Soil) **Characteristics:** Phototaxis; Heterothallic; Isogamy; Mating type (+); Resting spore forming **Other strain no.:** Asa041901 **References:** 186, 938

2456 History: < Hayama, Mahoko **Locality:** Fukuoka/Japan (2004-03-28) **Isolator:** Hayama, Mahoko **Identified by:** Hayama, Mahoko; Nozaki, Hisayoshi (2009-04-06) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 18-26µmol/m²/s; 14 D **Habitat:** Freshwater (Soil) **Characteristics:** Phototaxis; Heterothallic; Isogamy; Mating type (-); Resting spore forming **Other strain no.:** Asa041902 **Reference:** 186

2457 History: < Hayama, Mahoko **Locality:** Fukuoka/Japan (2004-03-28) **Isolator:** Hayama, Mahoko **Identified by:** Hayama, Mahoko; Nozaki, Hisayoshi (2009-04-06) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 18-26µmol/m²/s; 14 D **Habitat:** Freshwater (Soil) **Characteristics:** Phototaxis; Authentic strain; Heterothallic; Isogamy; Mating type (-); Resting spore forming **Other strain no.:** Asa041903 **References:** 186, 938

2458 History: < Hayama, Mahoko **Isolator:** Hayama, Mahoko **Identified by:** Hayama, Mahoko; Nozaki, Hisayoshi (2009-04-06) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 18-26µmol/m²/s; 14 D **Habitat:** Freshwater (Zygote of NIES-2455 x 2457) **Characteristics:** Phototaxis; Heterothallic; Isogamy; Mating type (+); Resting spore forming **Other strain no.:** AsaF1A1 **Reference:** 186

2459 History: < Hayama, Mahoko **Isolator:** Hayama, Mahoko **Identified by:** Hayama, Mahoko; Nozaki, Hisayoshi (2009-04-06) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 18-26µmol/m²/s; 14 D **Habitat:** Freshwater (Zygote of NIES-2455 x 2457) **Characteristics:** Phototaxis; Heterothallic; Isogamy; Mating type (-); Resting spore forming **Other strain no.:** AsaF1A2 **Reference:** 186

2460 History: < Hayama, Mahoko **Isolator:** Hayama, Mahoko **Identified by:** Hayama, Mahoko; Nozaki, Hisayoshi (2009-04-06) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 18-26µmol/m²/s; 14 D **Habitat:** Freshwater (Zygote of NIES-2455 x 2457) **Characteristics:** Phototaxis; Heterothallic; Isogamy; Mating type (+); Resting spore forming **Other strain no.:** AsaF1A3 **Reference:** 186

2461 History: < Hayama, Mahoko **Isolator:** Hayama, Mahoko **Identified by:** Hayama, Mahoko; Nozaki, Hisayoshi (2009-04-06) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 18-26µmol/m²/s; 14 D **Habitat:** Freshwater (Zygote of NIES-2455 x 2457) **Characteristics:** Phototaxis; Heterothallic; Isogamy; Mating type (-); Resting spore forming **Other strain no.:** AsaF1A4 **Reference:** 186

Gonium multicoccum Pocock

737 History: < Nozaki, Hisayoshi **Other collection strain no.:** UTEX 2580 **States:** Unialgal; Clonal; Axenic[2012 Mar] **Culture conditions:** VT; 20°C; 32-40µmol/m²/s; 1 M **Characteristics:** F1 clone of UTEX 2579 **Gene data:** atpB (AB014020); psaA (AB044239); psaA (AB044240); psaB (AB044461); psbC (AB044481); rbcL (D63435) **Other strain no.:** 90-530-F1-5 **References:** 715, 727, 733, 738

885 History: < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 783 **Locality:** Lemoncove/California/U.S.A. **Isolator:** Stein, J. R. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27µmol/m²/s; 1 M **Habitat:** (Soil or Mud) **References:** 702, 727

- 1038 History:** < Nozaki, Hisayoshi **Locality:** Texas/U.S.A. **Isolator:** Starr, R. C. **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20 °C ; 15-27µmol/m²/s; 2 M **Gene data:** ITS2 (AB246191); rbcL (AB246187) **Other strain no.:** GQ-M-Tx-1 **Reference:** 1210
- 1039 History:** < Nozaki, Hisayoshi **Locality:** Texas/U.S.A. **Isolator:** Starr, R. C. **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20 °C ; 15-27µmol/m²/s; 2 M **Other strain no.:** GQ-M-Tx-2
- 1707 History:** < Nozaki, Hisayoshi **Locality:** Chikuzen/Fukuoka/Japan (2004-03-**) **Isolator:** Yamada, Toshihiro **Identified by:** Yamada, Toshihiro (2004-06-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 23°C; 180-200µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Resting spore forming; Homothallic; Isogamy **Other strain no.:** Asa.Goni.6 **Reference:** 1210
- 1708 History:** < Nozaki, Hisayoshi **Locality:** Chikuzen/Fukuoka/Japan (2004-03-**) **Isolator:** Yamada, Toshihiro **Identified by:** Yamada, Toshihiro (2004-06-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 23°C; 180-200µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Resting spore forming; Homothallic; Isogamy **Gene data:** ITS2 (AB246192); rbcL (AB246188) **Other strain no.:** Asa.Goni.84 **References:** 613, 1210
- 1709 History:** < Nozaki, Hisayoshi **Locality:** Chikuzen/Fukuoka/Japan (2004-03-**) **Isolator:** Yamada, Toshihiro **Identified by:** Yamada, Toshihiro (2004-06-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 23°C; 180-200µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Resting spore forming; Homothallic; Isogamy **Other strain no.:** AsCl-1 **Reference:** 1210

Gonium octonarium Pocock

- 851 History:** < Nozaki, Hisayoshi **Isolator:** Starr, R. C. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27µmol/m²/s; 2 M **Gene data:** atpB (AB014018); psaA (AB044241); psaB (AB044462); psbC (AB044520) **Other strain no.:** GO-LC-1+ **References:** 733, 738, 740
- 852 History:** < Nozaki, Hisayoshi **Isolator:** Starr, R. C. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27µmol/m²/s; 2 M **Other strain no.:** GO-LC-3- **Reference:** 738

Gonium pectorale O.F. Müller

- 1710 History:** < Nozaki, Hisayoshi **Locality:** Kin/Okinawa/Japan (2000-03-**) **Isolator:** Nozaki, Hisayoshi; Kaneko, Daisuke **Identified by:** Nozaki, Hisayoshi (2001-10-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 23 °C ; 180-200µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Dioecious; Isogamy; Mating type(-); Crosses with NIES-1711 **Other strain no.:** Kaneko3 **References:** 136, 474, 566, 662
- 1711 History:** < Nozaki, Hisayoshi **Locality:** Kin/Okinawa/Japan (2000-03-**) **Isolator:** Nozaki, Hisayoshi; Kaneko, Daisuke **Identified by:** Nozaki, Hisayoshi (2001-10-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 23 °C ; 180-200µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Dioecious; Isogamy; Mating type(+); Crosses with NIES-1710 **Gene data:** rbcL (AB246190) **Other strain no.:** Kaneko4 **References:** 136, 566, 1210
- 1712 History:** < Nozaki, Hisayoshi **Locality:** Kitahiroshima/Hokkaido/Japan (2004-03-**) **Isolator:** Yamada, Toshihiro **Identified by:** Yamada, Toshihiro (2004-05-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 23 °C ; 180-200µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Dioecious; Isogamy; Mating type(+); Crosses with NIES-1713 **Other strain no.:** Kita.Goni.1
- 1713 History:** < Nozaki, Hisayoshi **Locality:** Kitahiroshima/Hokkaido/Japan (2004-03-**) **Isolator:** Yamada, Toshihiro **Identified by:** Yamada, Toshihiro (2004-05-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 23 °C ; 180-200µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Dioecious; Isogamy; Mating type(-); Crosses with NIES-1712 **Gene data:** ITS1-5.8S-ITS2 (AB520751); rbcL (AB246189) **Other strain no.:** Kita.Goni.3 **Reference:** 1210

- 2261 History:** < IAM (2007) < Nozaki, Hisayoshi **Other collection strain no.:** IAM C-598 **Locality:** Kawasaki/Kanagawa/Japan (1994-04-09) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi (1994-05-**) **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** AF-6; 20°C; 8-15µmol/m²/s; 3 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type(+) **Other strain no.:** 94-409-G-4
- 2262 History:** < IAM (2007) < Nozaki, Hisayoshi **Other collection strain no.:** IAM C-599 **Locality:** Kawasaki/Kanagawa/Japan (1994-04-09) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi (1994-05-**) **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** AF-6; 20°C; 8-15µmol/m²/s; 3 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type(–) **Other strain no.:** 94-409-G-6

Gonium pectorale O.F. Müller var. *pectorale*

- 468 History:** < Nozaki, Hisayoshi **Locality:** Yokohama, Kohoku-ku/Kanagawa/Japan (1979-04-06) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** VT; 20°C; 15-22µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Heterothallic; Mating type(–); Crosses with NIES-469 **Other strain no.:** 9406-10 **References:** 396, 567, 662, 693, 702, 723
- 469 History:** < Nozaki, Hisayoshi **Locality:** Yokohama, Kohoku-ku/Kanagawa/Japan (1979-04-06) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20°C; 15-22µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Heterothallic; Mating type(+); Crosses with NIES-468 **Other strain no.:** 9406-12 **References:** 567, 693
- 569 History:** < Nozaki, Hisayoshi **Locality:** Kourakuen/Okayama/Japan (1988-10-12) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VTAC; 20°C; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Isogamy; Mating type(+); Crosses with NIES-570 **Gene data:** atpB (AB014016); atpB (AB014017); psaA (AB044242); psaB (AB044463); psbC (AB044521); rbcL (D63437) **Other strain no.:** 88-1113-G-1 **References:** 374, 567, 715, 733, 738, 740
- 570 History:** < Nozaki, Hisayoshi **Locality:** Kourakuen/Okayama/Japan (1988-10-12) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VTAC; 20°C; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Isogamy; Mating type(–); Crosses with NIES-569 **Other strain no.:** 88-1113-G-2 **Reference:** 567
- 645 History:** < Nozaki, Hisayoshi **Locality:** Near Goshokake Hot Spring/Akita/Japan (1985-07-10) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater (Pond sediment) **Characteristics:** Heterothallic; Isogamy; Mating type(+) **Other strain no.:** 5912-6 (+) **Reference:** 567
- 646 History:** < Nozaki, Hisayoshi **Locality:** Near Goshokake Hot Spring/Akita/Japan (1985-07-10) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater (Pond sediment) **Characteristics:** Heterothallic; Isogamy; Mating type(–) **Other strain no.:** 5912-6 (–) **Reference:** 567

Gonium quadratum Pringsheim ex Nozaki

- 647 History:** < Nozaki, Hisayoshi **Locality:** Japan **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20 °C ; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Heterothallic; Isogamy; Mating type(–); F1 clone of NIES-652 x 653; Sister clone to NIES-648, 649 and 650 from one zygote **Other strain no.:** 90-809-F1-2-1 **Reference:** 567
- 648 History:** < Nozaki, Hisayoshi **Locality:** Japan **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20 °C ; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Mixotrophic; Heterothallic; Isogamy; Mating type(+); F1 clone of NIES-652 x 653; Sister clone to NIES-647, 649 and 650 from one

zygote **Other strain no.:** 90-809-F1-2-2 **Reference:** 567

649 History: < Nozaki, Hisayoshi **Locality:** Japan **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20 °C ; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Mixotrophic; Heterothallic; Isogamy; Mating type(+); F1 clone of NIES-652 x 653; Sister clone to NIES-647, 648 and 650 from one zygote **Other strain no.:** 90-809-F1-2-3 **Reference:** 567

650 History: < Nozaki, Hisayoshi **Locality:** Japan **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20 °C ; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Mixotrophic; Heterothallic; Isogamy; Mating type(-); F1 clone of NIES-652 x 653; Sister clone to NIES-647, 648 and 649 from one zygote **Other strain no.:** 90-809-F1-2-4 **Reference:** 567

651 History: < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 956 **Locality:** Klausen/Italy **Isolator:** Pringsheim, E. G. **Identified by:** Pringsheim, E. G. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater (Soil) **Characteristics:** Authentic strain **References:** 567, 702, 703

652 History: < Nozaki, Hisayoshi **Locality:** Itahari/Nepal (1989-10-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Mixotrophic; Heterothallic; Isogamy; Mating type(-); Crosses with NIES-653 **Other strain no.:** 90-423-3 **References:** 567, 703

653 History: < Nozaki, Hisayoshi **Locality:** Itahari/Nepal (1989-10-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Mixotrophic; Heterothallic; Isogamy; Mating type(+); Crosses with NIES-652 **Gene data:** atpB (AB014019); psaA (AB044243); psaB (AB044464); psbC (AB044522); psbC (AB044523); rbcL (D63438) **Other strain no.:** 90-423-2 **References:** 567, 703, 715, 723, 733, 738, 740

Gonium viridistellatum M.Watanabe

288 History: < Watanabe, Masayuki **Locality:** Okinawa/Japan (1973-06-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 15-27µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type(-); Crosses with NIES-289 and 290 **Other strain no.:** G4 **References:** 567, 700, 1136

289 History: < Watanabe, Masayuki **Locality:** Okinawa/Japan (1973-06-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 15-27µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Authentic strain; Heterothallic; Mating type(+); Crosses with NIES-288 **Gene data:** atpB (AB076118); atpB (AB076119); psaA (AB076140); psaA (AB076141); psaB (AB076156); psbC (AB076173); rbcL (AB076091); rbcL-462 intron (AB076091) **Other strain no.:** G3 **References:** 567, 700, 743, 1136

290 History: < Watanabe, Masayuki **Locality:** Okinawa/Japan (1973-06-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 15-27µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Authentic strain; Heterothallic; Mating type(+); Crosses with NIES-288 **Other strain no.:** G1 **References:** 567, 700, 1136

654 History: < Nozaki, Hisayoshi **Other collection strain no.:** UTEX 2519 **Locality:** Yokohama, Midori-ku/Kanagawa/Japan (1980-01-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VT; 20°C; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Isogamy; Mating type(+) **Gene data:** atpB (AB014021); psaA (AB044244); psaB (AB044465); psbC (AB044524); rbcL (D86831); rbcL-462 intron (AB076090) **Other strain no.:** KY-4 (+) **References:** 567, 700, 714, 716, 733, 738, 743

655 History: < Nozaki, Hisayoshi **Other collection strain no.:** UTEX 2520 **Locality:** Yokohama,

Midori-ku/Kanagawa/Japan (1980-01-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VT; 20°C; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Isogamy; Mating type(–) **Other strain no.:** KY-7 (–) **References:** 567, 700

- 857 **History:** < Nozaki, Hisayoshi **Locality:** Kathmandu, Gaunsli/Nepal (1986-09-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Paddy soil) **Gene data:** atpB (AB076117); psaA (AB076139); psaB (AB076155); psbC (AB076172); rbcL (AB076092); rbcL (AB076093); rbcL-462 intron (AB076092) **Other strain no.:** 88-511-9 **Reference:** 743

GONYOSTOMUM : Raphidophyceae

Gonyostomum latum Iwanoff

- 1808 **History:** < TKB **Locality:** Matsumi-ike Pond/Ibaraki/Japan (2005-08-30) **Isolator:** Yamaguchi, Haruyo **Identified by:** Yamaguchi, Haruyo (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TKB-254 **Reference:** 1215 **Remarks:** Fragile species to transportation stresses

Gonyostomum semen (Ehrenberg) Diesing

- 1009 **History:** < Moriya, Mayumi **Locality:** Lake Ozenuma/Fukushima/Japan (2002-08-28) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AAF-6; 15°C; 15-22µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Other strain no.:** M-87 **Remarks:** Fragile species to transportation stresses

- 1380 **History:** < TKB **Locality:** Mizunuma Dam/Ibaraki/Japan (2004-07-07) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20 °C ; 32-40µmol/m²/s; 2 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Red tide **Other strain no.:** TKB-132 (nak26) **References:** 137, 1215 **Remarks:** Fragile species to transportation stresses

GRAESIELLA : Chlorophyceae

Graesiella emersonii (Shihira et Krauss) Nozaki et al.

Syn. Chlorella emersonii Shihira et Krauss; Chlorella fusca Shihira et Krauss var. vacuolata Shihira et Krauss; Graesiella vacuolata (Shihira et Krauss) Kalina et Puncochárová

- 226 **History:** < IAM (1983) **Other collection strain no.:** IAM C-28 **Locality:** Japan **Identified by:** Nozaki, Hisayoshi et al. (Reidentify) **Formerly identified as:** Chlorella pyrenoidosa Chick **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **References:** 202, 235, 496, 498, 499, 521, 567, 666, 721, 1022, 1125, 1187, 1266, 1267, 1268, 1269 **Remarks:** Cryopreserved

- 687 **History:** < Katagiri, Masayuki < CCAP **Other collection strain no.:** CCAP 211/8B; IAM C-104 **Locality:** Pennsylvania/U.S.A. (1923-**-**) **Isolator:** Emerson, R. **Identified by:** Nozaki, Hisayoshi et al. (Reidentify) **Formerly identified as:** Chlorella fusca Shihira et Krauss var. vacuolata Shihira et Krauss (in IAM) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Characteristics:** Authentic strain of Chlorella fusca Shihira et Krauss var. vacuolata Shihira et Krauss **Other strain no.:** C-104 **References:** 124, 176, 385, 437, 496, 498, 512, 548, 559, 560, 567, 721, 1101 **Remarks:** Cryopreserved

- 688 **History:** < Katagiri, Masayuki < CCAP **Other collection strain no.:** CCAP 211/8G **Locality:** Japan **Isolator:** Emerson, R. **Identified by:** Nozaki, Hisayoshi et al. (Reidentify) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20 °C ; 4-10µmol/m²/s; 3 M (25 °C ; 70-80µmol/m²/s) **Habitat:** Freshwater **Other strain no.:** 211/8G **References:** 567, 721 **Remarks:** Cryopreserved

- 689 **History:** < Katagiri, Masayuki < CCAP **Other collection strain no.:** CCAP 211/8H **Locality:**

Japan Isolator: Emerson, R. **Identified by:** Nozaki, Hisayoshi et al. (Reidentify) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20 °C ; 4-10µmol/m²/s; 3 M (25 °C ; 70-80µmol/m²/s) **Habitat:** Freshwater **Other strain no.:** 211/8H **References:** 567, 721 **Remarks:** Cryopreserved

- 690 History:** < Katagiri, Masayuki < CCAP **Other collection strain no.:** CCAP 211/11N **Locality:** Berlin/Germany **Isolator:** Emerson, R. pre **Identified by:** Nozaki, Hisayoshi et al. (Reidentify) **Formerly identified as:** Chlorella emersonii Shihira et Krauss (in CCAP) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20 °C ; 4-10µmol/m²/s; 3 M (25 °C ; 70-80µmol/m²/s) **Habitat:** Freshwater **Characteristics:** Authentic strain of Chlorella emersonii Shihira et Krauss **Gene data:** 18S rRNA (AJ242761) **Other strain no.:** 211/11N **References:** 567, 721 **Remarks:** Cryopreserved
- 2151 History:** < IAM (2007) < BIU (UTEX; 1961) **Other collection strain no.:** IAM C-105; CCAP 211/8C; SAG 211-8c; UTEX 252; UTCC 89; NIBB 4001; NIBB 4002; NIBB 4003; NIBB 4004; NIBB 4005. NIBB 4006 **Locality:** Berlin-Dahlem/Germany **Isolator:** Emerson, R. **Identified by:** Kessler, E.; Confirmed at NIES by DNA sequencing (1993) **Formerly identified as:** Chlorella pyrenoidosa Chick **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C ; 8-15µmol/m²/s; 3 M **Habitat:** Freshwater (Tap water) **Gene data:** 18S rRNA (AB488562) **References:** 38, 385, 498, 499, 885 **Remarks:** Cryopreserved

GUNGNIR : Chlorophyceae

Gungnir kasakii (Nozaki) Nakada
Syn. *Chlorogonium kasakii* Nozaki

- 761 History:** < Nozaki, Hisayoshi < CCAP **Other collection strain no.:** CCAP 12/8 **Locality:** Priest Pot/England, Cambria/U.K. **Isolator:** Jaworski **Identified by:** Nozaki, Hisayoshi; Nakada, Takashi (Reidentify) **Formerly identified as:** Chlorogonium sp. (in CCAP) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27µmol/m²/s; 2 M **Habitat:** Freshwater (Water) **Characteristics:** Authentic strain; Type specimen (NIES-50005, Epitype) **Gene data:** rbcL (AB010244) **References:** 610, 737
- 1359 History:** < Nakada, Takashi **Locality:** Sakatagaike Pond/Chiba/Japan (2003-07-23) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20 °C ; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond sediment) **Characteristics:** Mixotrophic **Gene data:** psaB (AB451209); rbcL (AB206331) **Other strain no.:** SkCl-5 **References:** 606, 609, 610
- 1360 History:** < Nakada, Takashi **Locality:** Kitahiroshima, Nakanosawa/Hokkaido/Japan (2004-03-27) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond sediment) **Characteristics:** Mixotrophic **Gene data:** rbcL (AB206332) **Other strain no.:** KhCl-3 **References:** 606, 610

Gungnir neglectum (Pascher) Nakada

Syn. *Chlamydomonas neglecta* Korshikov ex Pascher; *Chlorogonium neglectum* Pascher

- 439 History:** < Suda, Shoichiro **Locality:** Tsukuba/Ibaraki/Japan (1984-05-08) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro; Nozaki, Hisayoshi; Nakada, Takashi (Reidentify) **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 22-32µmol/m²/s; 2 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Authentic strain; Type specimen (NIES-50006, Epitype) **Gene data:** atpB (AB084326); psaB (AB084366); rbcL (AB010243) **Other strain no.:** T-4-19 **References:** 275, 567, 610, 737, 740
- 1869 History:** < Nakada, Takashi **Locality:** Kyoto, Sakyo-ku/Kyoto/Japan (2005-03-29) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2007-06-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Authentic strain; Type specimen (NIES-50008) **Gene data:** psaB (AB451210) **Other strain no.:** IkCl-701 **Reference:** 609

GYMNODINIUM : Dinophyceae**Gymnodinium catenatum** Graham

- 1834 History:** < TKB **Locality:** Mie/Japan (2005-04-**) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-264 **Remarks:** Fragile species to transportation stresses

Gymnodinium sp.

- 2002 History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-05-12) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW19 **Remarks:** Fragile species to transportation stresses
- 2003 History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-05-12) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW20 **Remarks:** Fragile species to transportation stresses
- 2004 History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-05-12) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW22 **Remarks:** Fragile species to transportation stresses
- 2007 History:** < Noël, Mary-Hélène **Locality:** Soma Harbor/Fukushima/Japan (2005-06-17) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW34 **Remarks:** Fragile species to transportation stresses
- 2326 History:** < Sawaguchi, Tomohiro **Locality:** Tsushima Isl./Nagasaki/Japan (1986-03-13) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 35-50µmol/m²/s; 2 M **Habitat:** Freshwater (Reservoir water) **Other strain no.:** TKDD-11 **Remarks:** Fragile species to transportation stresses

GYRODINIUM : Dinophyceae**Gyrodinium instriatum** Freudenthal et Lee

- 2000 History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-08-01) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** MHW11 **Remarks:** Fragile species to transportation stresses

HAEMATOCOCCUS : Chlorophyceae**Haematococcus lacustris** (Girod-Chantrans) RostafinskiSyn. *Haematococcus pluvialis* Flotow

- 144 History:** < IAM (1983) **Other collection strain no.:** IAM C-392 **Locality:** Sapporo/Hokkaido/Japan (1964-07-16) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Lake water) **Characteristics:** Homothallic; Isogamy **Gene data:** 14-3-3 protein (AY973204); atpB (AB084325); lycopene β-cyclase (AY182008); psaB (AB084365); rbcL (AB084336); rbcL (AB084337); β-carotene ketolase (AY603347) **Other strain no.:** MKF-8 **References:** 235, 288, 333, 334, 375, 376, 377, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 459, 462, 463, 567, 740, 854, 855, 981, 1068, 1069, 1070, 1159, 1221, 1264
- 2263 History:** < IAM (2007) < Nakayama, Ooki **Other collection strain no.:** IAM C-339 **Locality:** Kofu/Yamanashi/Japan **Isolator:** Nakayama, Ooki **Identified by:** Nakayama, Ooki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Other strain**

- no.: Nakayama 5032 **Remarks:** Cryopreserved
- 2264 History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-582 (=C-296/C-393); SAG 34-1b; UTEX 16; ATCC 30402; UTCC B 93; CCAP 34/1b **Isolator:** Pringsheim, E. G. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Characteristics:** Astaxantin production **Reference:** 471 **Remarks:** Cryopreserved
- 2265 History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-583 (=C-394); UTEX 294; ATCC 30453; CCAP 34/1j **Isolator:** Lewin, Ralph A. **Identified by:** Lewin, Ralph A. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Other strain no.:** Lewin DD1/73 **Remarks:** Cryopreserved

HAFNIOMONAS : Chlorophyceae

Hafniomonas conica (Ettl) Nakada et Nozaki

Syn. Pyramimonas reticulata Korshikov var. conica Ettl; Hafniomonas reticulata Korshikov var. conica (Ettl) Ettl et Moestrup

- 1714 History:** < Nozaki, Hisayoshi **Locality:** Mure/Nagano/Japan (2003-07-12) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2005-11-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AFAC; 23°C; 180-200µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Gene data:** 18S rRNA (AB248251); psaB (AB248257) **Other strain no.:** NgCl-3 **Reference:** 615

Hafniomonas laevis Nakada, Suda et Nozaki

- 257 History:** < Suda, Shoichiro **Locality:** Tsukuba/Ibaraki/Japan (1983-10-30) **Isolator:** Suda, Shoichiro **Identified by:** Inouye, Isao; Nakada, et al. (Reidentify) **Formerly identified as:** Hafniomonas montana (Geitler) Ettl et Moestrup **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 15-22µmol/m²/s; 1 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Pool water) **Gene data:** atpB (AB101504); psaB (AB101515); rbcL (AB101509); rbcL (AB101510) **Other strain no.:** OUT-5 **References:** 567, 615, 664, 734, 987, 1159

Hafniomonas montana (Geitler) Ettl et Moestrup

- 656 History:** < Suda, Shoichiro **Locality:** Tsukuba/Ibaraki/Japan (1986-04-30) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic[2012 Nov] **Culture conditions:** C; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond sediment) **Gene data:** atpB (AB101505); psaB (AB101516); rbcL (AB101511); rbcL (AB101512) **Other strain no.:** 430M3-3 **References:** 567, 615, 664, 734, 1014

Hafniomonas reticulata (Korshikov) Ettl et Moestrup

Syn. Pyramimonas reticulata Korshikov

- 1715 History:** < Nozaki, Hisayoshi **Locality:** Mitsukaido/Ibaraki/Japan (2003-08-11) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2005-11-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AFAC; 23°C; 180-200µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Resting spore forming **Gene data:** 18S rRNA (AB248247); psaB (AB248253) **Other strain no.:** MkCl-10 **Reference:** 615

- 1716 History:** < Nozaki, Hisayoshi **Locality:** Ebina/Kanagawa/Japan (2004-02-26) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2005-11-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AFAC; 23°C; 180-200µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Resting spore forming **Gene data:** 18S rRNA (AB248250); psaB (AB248256) **Other strain no.:** EbCl-11 **Reference:** 615

- 1717 History:** < Nozaki, Hisayoshi **Locality:** Kitahiroshima/Hokkaido/Japan (2004-03-27) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2005-11-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AFAC; 23°C; 180-200µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Resting spore forming **Gene data:** 18S rRNA (AB248248); psaB (AB248254) **Other strain no.:** KhCl-1 **Reference:** 615

- 1718 History:** < Nozaki, Hisayoshi **Locality:** Kawagoe/Saitama/Japan (2004-05-30) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2005-11-**) **States:** Unialgal; Clonal; Non-axenic

Culture conditions: AFAC; 23°C; 180-200 μ mol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil)
Characteristics: Resting spore forming **Gene data:** 18S rRNA (AB248249); psaB (AB248255)
Other strain no.: KgCl-4-5 **Reference:** 615

Hafniomonas sp.

- 1841 **History:** < TKB **Locality:** Ryugasaki/Ibaraki/Japan (2005-09-29) **Isolator:** Chikuni, Tomoko
Identified by: Nakayama, Takeshi (2005-**-**) **States:** Unialgal; Non-clonal; Non-axenic
Culture conditions: AF-6; 25°C; 180-200 μ mol/m²/s; 1 M **Habitat:** Freshwater (Pond water)
Other strain no.: TKB-275

Hafniomonas turbinea Nakada et Nozaki

- 1719 **History:** < Nozaki, Hisayoshi **Locality:** Naruto/Chiba/Japan (2003-08-15) **Isolator:** Nakada, Takashi
Identified by: Nakada, Takashi (2005-11-**) **States:** Unialgal; Clonal; Non-axenic
Culture conditions: AFAC; 23°C; 180-200 μ mol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil)
Characteristics: Mixotrophic **Other strain no.:** NrCl-4
- 1720 **History:** < Nozaki, Hisayoshi **Locality:** Naruto/Chiba/Japan (2003-08-15) **Isolator:** Nakada, Takashi
Identified by: Nakada, Takashi (2005-11-**) **States:** Unialgal; Clonal; Non-axenic
Culture conditions: AFAC; 23°C; 180-200 μ mol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil)
Characteristics: Mixotrophic; Authentic strain **Gene data:** 18S rRNA (AB248252); psaB (AB248258) **Other strain no.:** NrCl-5 **Reference:** 615
- 1721 **History:** < Nozaki, Hisayoshi **Locality:** Naruto/Chiba/Japan (2003-08-15) **Isolator:** Nakada, Takashi
Identified by: Nakada, Takashi (2005-11-**) **States:** Unialgal; Clonal; Non-axenic
Culture conditions: AFAC; 23°C; 180-200 μ mol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil)
Characteristics: Mixotrophic **Other strain no.:** NrCl-8

HALOCHLOROCOCCUM : Ulvophyceae

Halochlorococcum sp.

- 1838 **History:** < TKB **Locality:** Tokyo/Japan (2005-01-**) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 μ mol/m²/s; 2 M **Habitat:** (Seawater) **Other strain no.:** TKB-269
- 1839 **History:** < TKB **Locality:** Yumenoshima/Tokyo/Japan (2005-01-**) **Isolator:** Nakayama, Takeshi
Identified by: Nakayama, Takeshi (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 μ mol/m²/s; 2 M **Habitat:** (Seawater) **Other strain no.:** TKB-270

HAMAKKO : Chlorophyceae

Hamakko caudatus Nakada

- 2293 **History:** < Nakada, Takashi **Locality:** Kanagawa/Japan (2003-05-12) **Isolator:** Nakada, Takashi
Identified by: Nakada, Takashi (2007-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; MG; 20°C; 32-40 μ mol/m²/s; 1 M **Habitat:** Freshwater (Soil) **Characteristics:** Authentic strain **Gene data:** 18S rRNA (AB451188); psaB (AB451212); rbcL (AB451193) **Other strain no.:** KzCl-4-1 **Reference:** 609

HANTZSCHIA : Bacillariophyceae

Hantzschia amphioxys (Ehrenberg) Grunow var. *compacta* Hustedt

- 587 **History:** < Hagiwara, Tomiji **Locality:** Tsukuba/Ibaraki/Japan (1990-04-19) **Isolator:** Hagiwara, Tomiji **Identified by:** Hagiwara, Tomiji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi; 15°C; 35-50 μ mol/m²/s; 1 M **Habitat:** Terrestrial (Concrete wall) **Other strain no.:** Wn-24

HARAMONAS : Raphidophyceae

Haramonas dimorpha Horiguchi

- 716 **History:** < Horiguchi, Takeo **Locality:** Daintree River/Australia (1991-09-21) **Isolator:** Horiguchi,

Takeo **Identified by:** Horiguchi, Takeo **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Brackish water (Sediment) **Characteristics:** Benthic; Authentic strain **Gene data:** 18S rRNA (AB365025); CO1 (AB334516); GapC1 (AB459523); GapC2 (AB459524); ITS1-5.8S-ITS2 (AB334370); petD (AB280618); psaA (AB367952); psbB (AB280591); psbC (AB280597); psbD (AB280602); rbcL (AB280608); rbcL (AB334443); tufA (AB367953) **References:** 65, 217, 245, 1036, 1214 **Remarks:** Fragile species to transportation stresses

Haramonas pauciplastida Yamaguchi, Hoppenrath, Takishita et Horiguchi

- 1870 **History:** < Yamaguchi, Haruyo **Locality:** Vancouver Isl., Pacher Beach/Canada (2005-05-**) **Isolator:** Hoppenrath, Mona **Identified by:** Yamaguchi, Haruyo (2007-08-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 15-22µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Characteristics:** Benthic; Authentic strain **Reference:** 1214 **Remarks:** Fragile species to transportation stresses

Haramonas sp.

- 1701 **History:** < Honda, Daisuke **Locality:** Yashima Isl./Kagawa/Japan (2001-04-17) **Isolator:** Fukaya, Sachiko **Identified by:** Fukaya, Sachiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 32-40µmol/m²/s; 14 D **Habitat:** Marine (Sand) **Characteristics:** Red tide; Benthic **Other strain no.:** SEK-115 **Remarks:** Fragile species to transportation stresses

HEMIDINIUM : Dinophyceae

Hemidinium nasutum Stein

- 471 **History:** < Sawaguchi, Tomohiro **Locality:** Tsuchiura/Ibaraki/Japan (1987-08-27) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6/2; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** 87SPD-1 **Remarks:** Fragile species to transportation stresses

HEMIFLAGELLOCHLORIS : Chlorophyceae

Hemiflagellochloris kazakhstanica S.Watanabe, Tsujimura, Misono, Nakamura et Inoue

- 1722 **History:** < Watanabe, Shin **Locality:** Lower Ili River Basin/Kazakhstan (1993-09-19) **Identified by:** Watanabe, Shin (2002-07-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial **Characteristics:** Authentic strain **Other strain no.:** BAKg15

HETEROCAPSA : Dinophyceae

Heterocapsa horiguchi Iwataki, Takayama et Matsuoka

- 614 **History:** < Sawaguchi, Tomohiro **Locality:** Kashiwazaki/Niigata/Japan (1986-08-04) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **Formerly identified as:** Cachonina niei Loeblich III **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** KSTH-29 **Reference:** 321 **Remarks:** Fragile species to transportation stresses

Heterocapsa niei (Loeblich III) Morrill et Loeblich III

Syn. Cachonina niei Loeblich III

- 420 **History:** < Sawaguchi, Tomohiro **Locality:** Iriomote Isl./Okinawa/Japan (1986-01-23) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** IID-1 **Reference:** 321 **Remarks:** Fragile species to transportation stresses

Heterocapsa ovata Iwataki et Fukuyo

- 472 **History:** < Sawaguchi, Tomohiro **Locality:** Kashiwazaki/Niigata/Japan (1986-08-04) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **Formerly identified as:** Heterocapsa pygmaea Lobelich III, Schmidt et Sherley **States:** Unialgal; Clonal; Non-axenic **Culture**

conditions: ESM; 20°C; 40-50 μ mol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** KSTH-23 **References:** 197, 320, 321 **Remarks:** Fragile species to transportation stresses

Heterocapsa pseudotriquetra Iwataki, Hansen et Fukuyo

- 473 **History:** < Sawaguchi, Tomohiro **Locality:** Tsushima Isl./Nagasaki/Japan (1986-03-13) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **Formerly identified as:** Heterocapsa pygmaea Lobelich III, Schmidt et Sherley **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50 μ mol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TMUD-2 **References:** 197, 321 **Remarks:** Fragile species to transportation stresses

Heterocapsa rotundata (Lohmann) Hansen

Syn. *Katodinium rotundatum* (Lohmann) Loeblich III

- 356 **History:** < Sawaguchi, Tomohiro **Locality:** Hachinohe Harbor/Aomori/Japan (1985-01-06) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; ESM; 10°C; 6-12 μ mol/m²/s; 1 M (10°C; 10-15 μ mol/m²/s) **Habitat:** Marine (Seawater) **Other strain no.:** HHD-1 **Remarks:** Unstable; Fragile species to transportation stresses

Heterocapsa sp.

- 1403 **History:** < TKB **Locality:** Tsukuba Univ. Marine Research Center/Shizuoka/Japan (2003-04-03) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 40-50 μ mol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** TKB-060 (AK-04) **Remarks:** Fragile species to transportation stresses
- 2343 **History:** < KAGAWA < Yoshimatsu, Sadaaki **Locality:** Ago Bay/Mie/Japan (1992-12-**) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Clonal **Culture conditions:** ESM; 20°C; 40-50 μ mol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** Mie-92 **Remarks:** Fragile species to transportation stresses
- 2344 **History:** < KAGAWA < Yoshimatsu, Sadaaki **Locality:** Uranouchi Bay/Kochi/Japan (1988-09-**) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Clonal **Culture conditions:** ESM; 20°C; 40-50 μ mol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** Uranouchi **Remarks:** Fragile species to transportation stresses

Heterocapsa triquetra Stein

- 7 **History:** < Watanabe, Makoto M. **Locality:** Osaka Bay/Osaka/Japan (1981-04-**) **Isolator:** Yamochi, Susumu **Identified by:** Yamochi, Susumu **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; ESM; 20°C; 32-40 μ mol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Other strain no.:** OHet **References:** 197, 335, 434, 465, 466, 676, 677 **Remarks:** Fragile species to transportation stresses
- 235 **History:** < KAGAWA **Locality:** Harima-Nada/Japan (1982-03-10) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** f/2; 20°C; 32-40 μ mol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Other strain no.:** KGW-57 **References:** 197, 1115 **Remarks:** Fragile species to transportation stresses

HETEROCHLAMYDOMONAS : Chlorophyceae

Heterochlamydomonas lobata Langford et Cox

- 2581 **History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-268; SAG 38.72; UTEX 728 **Locality:** Canada **Isolator:** Lewin, Ralph A. **Identified by:** Ettl, H.; Schlosser, U.G. **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20 °C; 8-15 μ mol/m²/s; 3 M **Other strain no.:** Lewin ZZ.1,D/4

Heterochlamydomonas sp.

- 157 **History:** < Watanabe, Shin **Locality:** Mt. Shiroumadake/Nagano/Japan (1980-08-**) **Isolator:** Watanabe, Shin **Identified by:** Watanabe, Shin **Formerly identified as:** Chlamydomonas monticola S.Watanabe **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20 °C; 4-10 μ mol/m²/s; 3 M (25 °C; 70-80 μ mol/m²/s) **Habitat:** Terrestrial (Soil) **Other strain no.:**

KUC80-4 **References:** 567, 838, 1186

HETEROSIGMA : Raphidophyceae

Heterosigma akashiwo (Hada) Hada ex Y.Hara et Chihara

- 5 **History:** < Iwasaki, Hideo **Locality:** Gokasho Bay/Mie/Japan (1966-**-**) **Isolator:** Iwasaki, Hideo **Identified by:** Hara, Yoshiaki **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Gene data:** 16S rRNA (AB181953); 16S-tRNA-Ile-tRNA-Ala-23S (AB181957); 28S rRNA (AB217644); CO1 (AB334506); rbcL (AB334433); rbcL, rbcS, cfxQ, psbA (AB176660) **Other strain no.:** GHE **References:** 65, 318, 878 **Remarks:** Fragile species to transportation stresses
- 6 **History:** < Watanabe, Makoto M. **Locality:** Osaka Bay/Osaka/Japan (1979-08-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Gene data:** 16S rRNA (AB181954); 16S-tRNA-Ile-tRNA-Ala-23S (AB181958); 18S-ITS1-5.8S-ITS2-28S (AF157381); CO1 (AB334507); rbcL (AB334434) **Other strain no.:** OHE-1 **References:** 65, 115, 152, 173, 389, 390, 391, 426, 427, 428, 430, 433, 434, 441, 562, 563, 568, 592, 629, 676, 679, 750, 800, 907, 969, 970, 993, 1118, 1119, 1120, 1139, 1162, 1164, 1165, 1166, 1167, 1168, 1175, 1176, 1177, 1178, 1179, 1180, 1183, 1184, 1213, 1235, 1243 **Remarks:** Fragile species to transportation stresses
- 9 **History:** < Watanabe, Makoto M. **Locality:** Harima-Nada/Japan (1983-02-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; 20 °C ; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Sediment) **Characteristics:** Red tide **Gene data:** 18S-ITS1-5.8S-ITS2-28S (AF163817); CO1 (AB334508); rbcL (AB334435) **Other strain no.:** H-28 **References:** 65, 137 **Remarks:** Fragile species to transportation stresses
- 10 **History:** < Watanabe, Makoto M. **Locality:** Harima-Nada/Japan (1983-02-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** f/2; 20 °C ; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Sediment) **Characteristics:** Red tide **Gene data:** CO1 (AB334436); rbcL (AB334436) **Other strain no.:** H-40 **Reference:** 65 **Remarks:** Fragile species to transportation stresses
- 145 **History:** < KAGAWA **Locality:** Kagoshima/Japan (1978-05-21) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Gene data:** 28S rRNA (AB217645); CO1 (AB334510); rbcL (AB334437) **Other strain no.:** KGW-11-5 **References:** 65, 335, 1115 **Remarks:** Fragile species to transportation stresses
- 146 **History:** < KAGAWA **Locality:** Shido Bay/Kagawa/Japan (1978-06-20) **Isolator:** Yuki, Katsuhisa **Identified by:** Yuki, Katsuhisa **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Gene data:** CO1 (AB334511); rbcL (AB334438) **Other strain no.:** KGW-21-2 **Reference:** 65 **Remarks:** Fragile species to transportation stresses
- 293 **History:** < Suda, Shoichiro **Locality:** Onagawa Bay/Miyagi/Japan (1984-08-28) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Gene data:** 18S-ITS1-5.8S-ITS2-28S (DQ470658); chloroplast genome (NC_010772); chloroplast genome (EU168190); CO1 (AB334512); rbcL (AB334439) **Other strain no.:** 8280G21-1 **References:** 48, 58, 65, 386, 1021 **Remarks:** Fragile species to transportation stresses
- 561 **History:** < Honjo, Tsuneo **Locality:** Mikawa Bay/Aichi/Japan **Isolator:** Toriumi, Saburo **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Gene data:** CO1 (AB334513); ITS1-5.8S-ITS2 (AB334369); rbcL (AB334440) **References:** 65, 867, 868, 1074 **Remarks:** Fragile species to transportation stresses
- 1830 **History:** < TKB **Locality:** Miyajima Isl./Hiroshima/Japan (2004-12-10) **Isolator:** Nakayama,

Takeshi **Identified by:** Nakayama, Takeshi (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20 °C ; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** TKB-302 **Remarks:** Fragile species to transportation stresses

HEXAMITA : Trepomonadea

Hexamita sp.

- 1440 **History:** < TKB **Locality:** Hyotaro-ike Pond/Ibaraki/Japan (2003-05-26) **Isolator:** Yubuki, Naoji **Identified by:** Yubuki, Naoji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** UYTS + Rice; 15°C; 0µmol/m²/s; 20 D **Habitat:** Freshwater (Pond water) **Characteristics:** Offensive taste and odor; Heterotrophic **Other strain no.:** TKB-057 (NY0140) **Reference:** 137

HYALOLITHUS : Prymnesiophyceae

Hyalolithus neolepis Yoshida, Noël, Nakayama, Naganuma et Inouye

- 1393 **History:** < TKB **Locality:** Shiribeshi Seamount/Hokkaido/Japan (2001-07-19) **Isolator:** Yoshida, Masaki **Identified by:** Yoshida, Masaki (2001-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 18 °C ; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Authentic strain **Other strain no.:** TKB-005 (ym-05) **Reference:** 1250

HYALOTHECA : Charophyceae

Hyalotheca dissiliens Brébisson ex Ralfs

- 147 **History:** < IAM (1983) **Other collection strain no.:** IAM C-510 **Locality:** Nagatoro/Saitama/Japan (1969-11-13) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15µmol/m²/s; 3 M (20°C; 15-27µmol/m²/s) **Habitat:** Freshwater (Pond sediment) **Characteristics:** Heterothallic; Crosses with NIES-148 **Other strain no.:** S-9-18 **Reference:** 567

- 148 **History:** < IAM (1983) **Other collection strain no.:** IAM C-511 **Locality:** Nagatoro/Saitama/Japan (1969-11-13) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15µmol/m²/s; 3 M (20°C; 15-27µmol/m²/s) **Habitat:** Freshwater (Pond sediment) **Characteristics:** Heterothallic; Crosses with NIES-147 **Other strain no.:** S-9-22 **Reference:** 567

- 150 **History:** < IAM (1983) **Other collection strain no.:** IAM C-513 **Locality:** Lake Kasumigaura/Ibaraki/Japan (1975-12-16) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20°C; 8-15µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Heterothallic **Other strain no.:** KAS-7-8 **Reference:** 567

Hyalotheca dissiliens Brébisson ex Ralfs f. *tridentula* (Nordstedt) Boldt

- 294 **History:** < Kasai, Fumie **Locality:** Tsukuba/Ibaraki/Japan (1982-**-**) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VT; 20°C; 8-15µmol/m²/s; 3 M (20°C; 15-27µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Homothallic **Other strain no.:** H-1 **Reference:** 567

HYDROCOCCUS : Cyanophyceae

Hydrococcus rivularis Kützing

- 593 **History:** < Hagiwara, Tomiji **Locality:** Yukawa Hot Spring/Iwate/Japan (1990-09-09) **Isolator:** Hagiwara, Tomiji **Identified by:** Hagiwara, Tomiji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 20°C; 4-10µmol/m²/s; 4 M (25°C; 70-80µmol/m²/s) **Habitat:** Hot spring (Water) **Characteristics:** Benthic **Other strain no.:** Yu-52 **References:** 221, 567

HYDRODICTYON : Chlorophyceae*Hydrodictyon reticulatum* (Lagerheim) Lagerheim

- 295 History:** < IAM (1983) **Other collection strain no.:** IAM C-335 **Locality:** Osaka/Japan (1968-11-10) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20 °C ; 4-10µmol/m²/s; 3 M (25 °C ; 70-80µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic **Other strain no.:** O-2 **References:** 235, 567

HYMENOMONAS : Prymnesiophyceae*Hymenomonas coronata* Mills

- 1016 History:** < Moriya, Mayumi **Locality:** Hirara, Shimajiri/Okinawa/Japan (2002-03-17) **Isolator:** Moriya, Mayumi **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 15-22µmol/m²/s; 1 M **Habitat:** Brackish water (Water) **Other strain no.:** M-27 **Reference:** 142

IMANTONIA : Prymnesiophyceae*Imantonia rotunda* Reynolds emend. J.C. Green et Pienaar

- 1001 History:** < Kawachi, Masanobu **Locality:** Chiba Harbor/Chiba/Japan (1990-10-**) **Isolator:** Kawachi, Masanobu **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20 °C ; 20-30µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** Iman2
- 1394 History:** < TKB **Locality:** Onahama Harbor/Fukushima/Japan (2004-07-07) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** f/2; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-128 (nak22)

INTERFILUM : Charophyceae*Interfilum paradoxum* Chodat et Topali

- 2180 History:** < IAM (2007) < BIU (UTEX) **Other collection strain no.:** IAM C-161; CCAP 338/1; SAG 338-1; ATCC 30445; UTEX 177 **Locality:** U.K. **Isolator:** Pringsheim, E. G. **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** Pro (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat:** (Soil)

ISOCHRYYSIS : Prymnesiophyceae*Isochrysis galbana* Parke

- 2590 History:** < RCC (2009) **Other collection strain no.:** RCC 178 **Locality:** English Channel/Brittany Coast/France **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 22-32µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Other strain no.:** Caen

KARENIA : Dinophyceae*Karenia mikimotoi* (Miyake et Kominami ex Oda) Hansen et Moestrup

Syn. *Gymnodinium mikimotoi* Miyake et Kominami ex Oda; *Gymnodinium nagasakiense* Takayama et Adachi

- 2411 History:** < Iwataki, Mitsunori **Locality:** Katagami Bay/Nagasaki/Japan (2004-06-04) **Isolator:** Iwataki, Mitsunori **Identified by:** Iwataki, Mitsunori (2004-06-04) **States:** Unialgal **Culture conditions:** MNK; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine **Remarks:** Fragile species to transportation stresses

KARLODINIUM : Dinophyceae

***Karlodinium veneficum* (Ballantine) Larsen**

- 1966 History:** < TKB **Locality:** Kobe, Suma-ku/Hyogo/Japan (2005-12-10) **Isolator:** Nakayama, Takeshi **Identified by:** Yamaguchi, Haruyo (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** IMK; 20°C; 10-15µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-327 **Remarks:** Fragile species to transportation stresses

KATHABLEPHARIS* : Kathablepharidea**Kathablepharis japonica* Okamoto et Inouye**

- 1334 History:** < TKB **Locality:** Tokyo Bay/Japan (2004-01-20) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko **States:** Mixed; Clonal; Non-axenic **Culture conditions:** mIMR (NIES-1333 should be cultured in advance as a prey); 20°C; 15-22µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Predator; Phagotrophic; Feeds on Chrysochromulina sp. (NIES-1333) **Gene data:** 18S rRNA (AB193602) **Other strain no.:** TKB-090 (nrc066) **Reference:** 799

KATODINIUM* : Dinophyceae**Katodinium* sp.**

- 2008 History:** < Noël, Mary-Hélène **Locality:** New Castle/South Pacific Ocean (2005-06-21) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** MHW17 **Remarks:** Fragile species to transportation stresses
- 2009 History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-05-12) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW18 **Remarks:** Fragile species to transportation stresses

KENTROSPHAERA* : Ulvophyceae**Kentrosphaera* sp.**

- 154 History:** < Watanabe, Shin **Locality:** Sasebo/Nagasaki/Japan (1975-08-12) **Isolator:** Watanabe, Shin **Identified by:** Watanabe, Shin **Formerly identified as:** Characium maximum S.Watanabe **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (Soil) **Other strain no.:** 6-EBO-2 **References:** 567, 1186 **Remarks:** Cryopreserved

KLEBSORMIDIUM* : Charophyceae**Klebsormidium flaccidum* (Kützing) Silva, Mattox et Blackwell**

- 2285 History:** < IAM (2007) < BIU (UTEX; 1965) **Other collection strain no.:** IAM C-117; UTEX 321; SAG 335-1a; CCAP 335/1a **Isolator:** Pringsheim, E. G. **Formerly identified as:** Hormidium barlowi **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Reference:** 88
- 2286 History:** < IAM (2007) **Other collection strain no.:** IAM C-164 **Locality:** U.S.A. **Isolator:** Pringsheim, E. G. **Formerly identified as:** Hormidium flaccidum (Kützing) A.Braun **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M
- 2408 History:** < Nagao, Manabu **Locality:** Hokkaido University/Hokkaido/Japan (2000-10-08) **Isolator:** Nagao, Manabu **Identified by:** Nagao, Manabu (2001-02-01) **States:** Unialgal **Culture conditions:** C; 20 °C ; 22-32µmol/m²/s; 2 M **Habitat:** Terrestrial (Soil) **Characteristics:** Cryophilic; Resting spore forming **References:** 597, 598, 599

LAGERHEIMIA* : Trebouxiophyceae**Lagerheimia ciliata* (Lagerheim) Chodat**

- 382 **History:** < Kasai, Fumie **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-08-23) **Isolator:** Kasai, Fumie **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** F37-1 **Reference:** 567 **Remarks:** Cryopreserved

LAGYNION : Chrysophyceae

Lagynion subglobosum Starmach

- 1827 **History:** < TKB **Locality:** Hyotaro-ike Pond/Ibaraki/Japan (2004-06-24) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi (2004-**-**) **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 20-30µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TKB-133

LAMPROTHAMNIUM : Charophyceae

Lamprothamnium succinctum (A.Braun) R.D. Wood

- 1606 **History:** < Sakayama, Hidetoshi **Locality:** Jaga-ike Pond/Tokushima/Japan (2004-06-14) **Identified by:** Sakayama, Hidetoshi (2004-06-14) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 1/3HerbstASW; 20°C; 16-20µmol/m²/s; 6 M **Habitat:** Brackish water **Characteristics:** Monoecious; CR+EN **Other strain no.:** CH-100

LEPIDODINIUM : Dinophyceae

Lepidodinium chlorophorum (Elbrachter et Schnepf) Hansen, Botes et de Salas
Syn. *Gymnodinium chlorophorum* Elbrachter et Schnepf

- 1868 **History:** < Kawachi, Masanobu **Locality:** East China Sea (2004-07-28) **Isolator:** Noël, Mary-Hélène **Identified by:** Kawachi, Masanobu (2007-08-20) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 18-26µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Green chloroplast **Gene data:** 18S rRNA (AB686254) **Other strain no.:** MH210 **Reference:** 505 **Remarks:** Fragile species to transportation stresses

LEPTOLYNGBYA : Cyanophyceae

Leptolyngbya sp.

- 30 **History:** < IAM (1983) **Other collection strain no.:** IAM M-40 **Locality:** Akita/Japan **Isolator:** Ishikawa, Masako **Identified by:** Fukushima, Hiroshi; Watanabe, Makoto M. (Reidentify); Homma, Takamitsu (Re-reidentify) **Formerly identified as:** Phormidium tenue (C.Agardh ex Gomont) Anagnostidis et Komárek **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 4-10µmol/m²/s; 4 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Paddy field) **Gene data:** 16S rRNA (AB042857) **References:** 235, 567, 796, 955 **Remarks:** Cryopreserved

- 2103 **History:** < IAM (2007) < Katoh, Hiroshi **Other collection strain no.:** IAM M-288 **Locality:** Himeji/Hyogo/Japan (2002-**-**) **Isolator:** Katoh, Hiroshi **Identified by:** Katoh, Hiroshi **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** BG-11 (agar); 20°C; 13-18µmol/m²/s; 3 M **Habitat:** Terrestrial **Characteristics:** Drought tolerance **Other strain no.:** HK-03

- 2104 **History:** < IAM (2007) < Katoh, Hiroshi **Other collection strain no.:** IAM M-289 **Locality:** Himeji/Hyogo/Japan (2002-**-**) **Isolator:** Katoh, Hiroshi **Identified by:** Katoh, Hiroshi **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** BG-11 (agar); 20°C; 13-18µmol/m²/s; 3 M **Habitat:** Terrestrial **Characteristics:** Drought tolerance **Other strain no.:** HK-04

LEUCOCRYPTOS : Kathablepharidea

Leucocryptos marina (Braarud) Butcher

- 1335 **History:** < TKB **Locality:** Tokyo Bay/Japan (2003-10-16) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko **States:** Mixed; Non-clonal; Non-axenic **Culture conditions:** f/2

(NIES-1333 should be cultured in advance as a prey); 20°C; 22-32µmol/m²/s; 1 M **Habitat**: Marine (Seawater) **Characteristics**: Phagotrophic; Heterotrophic; Feeds on Chrysochromulina sp. (NIES-1333) **Gene data**: 18S rRNA (AB194980); β-tubulin (AB194977); β-tubulin (AB194978) **Other strain no.**: TKB-081 (nrc057) **References**: 392, 799

LIMNOTHRIX : Cyanophyceae

Limnothrix redekei (Van Goor) Meffert
Syn. Oscillatoria redekei Van Goor

847 History: < Suda, Shoichiro < NIVA **Other collection strain no.**: NIVA CYA 277/1 **Locality**: Lake Mälaren/Sweden (1990-**-**) **Isolator**: Skulberg, R. **Identified by**: Suda, Shoichiro **States**: Unialgal; Clonal; Axenic **Culture conditions**: CT; 22 °C; 70-90µmol/m²/s; 1 M **Habitat**: Freshwater (Lake water) **Characteristics**: Cyanobacterial water bloom (aoko) **Gene data**: 16S rRNA (AB045929) **References**: 221, 991 **Remarks**: Cryopreserved

LITHODESMIUM : Bacillariophyceae

Lithodesmium variable Takano

588 History: < Ono, Sachiko **Locality**: Hitachi/Ibaraki/Japan (1990-09-26) **Isolator**: Ono, Sachiko **Identified by**: Ono, Sachiko **States**: Unialgal; Non-clonal; Non-axenic **Culture conditions**: f/2; 15°C; 10-18µmol/m²/s; 1 M **Habitat**: Marine (Seawater) **Characteristics**: Red tide **Other strain no.**: St-12

LOBOCHLAMYS : Chlorophyceae

Lobochlamys culleus (Ettl) Pröschold, Marin, Schlosser et Melkonian

2209 History: < IAM (2007) < UTEX (1996) **Other collection strain no.**: IAM C-552 (=C-231); SAG 18.72; UTEX 1057; CGC CC-1743 **Locality**: near Maxville/Florida/U.S.A. **Isolator**: Smith, G. M. **Formerly identified as**: Chlamydomonas culleus Ettl; Chlamydomonas frankii Pascher **States**: Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions**: C (agar); 20°C; 8-15µmol/m²/s; 3 M **Characteristics**: Heterothallic; Mating type(+); Crosses with NIES-2210 (IAM C-553) **Other strain no.**: Chlamydomonas culleus

2210 History: < IAM (2007) < UTEX (1996) **Other collection strain no.**: IAM C-553 (=C-232); SAG 19.72; UTEX 1058; CGC CC-1744 **Locality**: near Maxville/Florida/U.S.A. **Isolator**: Smith, G. M. **Formerly identified as**: Chlamydomonas culleus Ettl; Chlamydomonas frankii Pascher **States**: Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions**: C (agar); 20°C; 8-15µmol/m²/s; 3 M **Characteristics**: Heterothallic; Mating type(-); Crosses with NIES-2209 (IAM C-552)

Lobochlamys segnis (Ettl) Pröschold, Marin, Schlosser et Melkonian

2214 History: < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.**: IAM C-230; CCAP 11/69; SAG 17.72; UTEX 1349 **Isolator**: Ettl, H. **Formerly identified as**: Chlamydomonas fimbriata Ettl **States**: Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions**: C (agar); 20°C; 8-15µmol/m²/s; 3 M **Reference**: 735

2240 History: < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.**: IAM C-254; ATCC 30631; CCAP 11/13; SAG 11-13; UTEX 222 **Locality**: West Humble, Dorking/U.K. **Isolator**: Pringsheim, E. G. **Formerly identified as**: Chlamydomonas segnis Ettl; Chlamydomonas intermedia Chodat **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: C (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat**: Freshwater (Pond water)

LOBOMONAS : Chlorophyceae

Lobomonas monstruosa Korshikov

474 History: < Suda, Shoichiro **Locality**: Iwaki/Fukushima/Japan (1984-08-26) **Isolator**: Suda, Shoichiro **Identified by**: Suda, Shoichiro **States**: Unialgal; Clonal; Axenic **Culture conditions**: C; 20°C; 22-32µmol/m²/s; 2 M **Habitat**: Freshwater (Pond water) **Gene data**: atpB (AB044533);

psaA (AB044421); psaB (AB044472); psbC (AB044530); rbcL (AB044171) **Other strain no.:** FL
References: 567, 733, 740

Lobomonas piriformis Pringsheim

- 2266 History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-584 (=C-297); ATCC 30403; SAG 45-1; UTEX 17; CCAP 45/1 **Locality:** shore of River Elbe/Czechoslovakia **Isolator:** Pringsheim, E. G. **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M

LOTHARELLA : Chlorarachniophyceae

Lotharella reticulosa Ohta

- 2584 History:** < RCC (2009) **Other collection strain no.:** RCC 375 **Locality:** Mediterranean Sea (1999-09-26) **Isolator:** Partensky, F.; Le Gall, F. (Re-isolation) **Identified by:** Confirmed at RCC by DNA sequencing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** PROSOPE 97-1 **Reference:** 832

LUTEOCERASUS : Dictyochophyceae

Luteocerasus tetraplastida nom. nud.

- 1871 History:** < TKB **Locality:** Sesoko/Okinawa/Japan **Identified by:** Nakayama, Takeshi (2007-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** IMK; 20 °C ; 15-22µmol/m²/s; 1-2 M **Habitat:** Marine (Seawater) **Characteristics:** Authentic strain **Other strain no.:** TKB-258

MALLOMONAS : Chrysophyceae

Mallomonas sp.

- 1376 History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2004-01-25) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 18°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Sand and seawater) **Other strain no.:** TKB-089 (nrc065)

MAMIELLA : Prasinophyceae

Mamiella sp.

- 2310 History:** < Suda, Shoichiro **Locality:** Toi Bay/Shizuoka/Japan (1988-07-23) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 8-15µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** 814To-3
- 2329 History:** < Sawaguchi, Tomohiro **Locality:** Hachinohe Harbor/Aomori/Japan (1986-08-**) **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal **Culture conditions:** ESM; 15 °C ; 15-22µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** Hamam

MANTONIELLA : Prasinophyceae

Mantoniella squamata (Manton et Parke) Desikachary

- 1409 History:** < TKB **Locality:** Tokyo/Japan (2004-10-28) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20 °C ; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-190 (nak79)

MARSUPIOMONAS : Pedinophyceae

Marsupiomonas sp.

- 1410 History:** < TKB **Locality:** Wakayama/Japan (2002-07-**) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Benthic **Gene data:** 16S rRNA (AB234295) **Other strain no.:** TKB-040 (nrc001-014)
- 1824 History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2005-03-30) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Other strain no.:** TKB-243

MERISMOPEDIA : Cyanophyceae

Merismopedia tenuissima Lemmermann

- 230 History:** < Kasai, Fumie **Locality:** Tsukuba/Ibaraki/Japan (1984-05-07) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 15-22µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** F98-2 **References:** 139, 192, 360, 567, 1219, 1272 **Remarks:** Cryopreserved

MEROTRICHIA : Raphidophyceae

Merotricha bacillata Mereschkowsky

- 1809 History:** < TKB **Locality:** Shishizuka-ohike Pond/Ibaraki/Japan (2005-08-29) **Isolator:** Yamaguchi, Haruyo **Identified by:** Yamaguchi, Haruyo (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** URO-H, AAF-6; 20 °C ; 25-40µmol/m²/s; 20 D **Habitat:** Freshwater (Pond water) **Other strain no.:** TKB-253 **Reference:** 1215 **Remarks:** Fragile species to transportation stresses

MESOPEDINELLA : Dictyochophyceae

Mesopedinella arctica Daugbjerg

- 2687 History:** < RCC (2010) **Other collection strain no.:** RCC 382 **Locality:** Atlantic (Maroccan Upwelling) (1999-09-12) **Isolator:** Garczarek, L.; Le Gall, F. (Re-isolation) **Identified by:** Eikrem, W. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20 °C ; 22-32µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** PROSOPE_2

MESOSTIGMA : Mesostigmatophyceae

Mesostigma viride Lauterborn

- 296 History:** < Suda, Shoichiro **Locality:** Mitsukaido/Ibaraki/Japan (1985-07-03) **Isolator:** Suda, Shoichiro **Identified by:** Inouye, Isao **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Gene data:** chloroplast genome (NC_002186); Mitochondrial DNA (AF353999); Plastid DNA (AF166114); Root cap protein 1-8 mRNAs (DQ287936-DQ287943) **Other strain no.:** KY-14 **References:** 138, 295, 473, 668, 1104, 1107, 1261

- 475 History:** < Suda, Shoichiro **Locality:** Mitsukaido/Ibaraki/Japan (1986-01-17) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 22-32µmol/m²/s; 20 D **Habitat:** Freshwater (Pond sediment) **Characteristics:** Heterothallic; Mating type(+) **Other strain no.:** KY-Mes-2 **Reference:** 1261

- 476 History:** < Suda, Shoichiro **Locality:** Mitsukaido/Ibaraki/Japan (1986-01-17) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; 20 °C ; 22-32µmol/m²/s; 20 D **Habitat:** Freshwater (Pond sediment) **Characteristics:** Heterothallic; Mating type(-) **Other strain no.:** KY-Mes-1 **References:** 40, 129, 508, 971, 1261

- 477 History:** < Suda, Shoichiro **Locality:** Mitsukaido/Ibaraki/Japan (1986-01-17) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20 °C ; 22-32µmol/m²/s; 20 D **Habitat:** Freshwater (Pond sediment) **Characteristics:**

Heterothallic; Mating type(−) **Other strain no.:** KY-Mes-3 **References:** 508, 1261

- 995 History:** < Miyamura, Shin-ichi **Locality:** Hojo-ohike Pond/Ibaraki/Japan (1995-11-01) **Isolator:** Watanabe, Satoru **Identified by:** Watanabe, Satoru **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C; 20 °C ; 40-50µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Phototaxis; Cells larger than normal strains **Other strain no.:** Hojo1

MESOTAENIUM : Charophyceae

Mesotaenium caldarium (Lagerheim) Hansgirg

- 2287 History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-585 (=C-309); ATCC 30595; CCAP 648/1; SAG 648-1; UTEX 41; CAUP K101 **Locality:** Brunn/Czechoslovakia **Isolator:** Czurda **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat:** (Wet brick) **Characteristics:** Antibacterial activity **Reference:** 44

Mesotaenium kramstae Lemmermann

- 657 History:** < IAM (1983) < BIU (UTEX) **Other collection strain no.:** IAM C-330; UTEX LB 1024 **Locality:** Austin/Texas/U.S.A. **Isolator:** Starr, R. C. **Identified by:** Grönblad, R. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20 °C ; 4-10µmol/m²/s; 3 M (25 °C ; 70-80µmol/m²/s) **Habitat:** Terrestrial (Air) **Characteristics:** Heterothallic; Mating type(+); Crosses with NIES-658 **Reference:** 567
- 658 History:** < IAM (1983) < BIU (UTEX) **Other collection strain no.:** IAM C-331; UTEX LB 1025 **Locality:** Austin/Texas/U.S.A. **Isolator:** Starr, R. C. **Identified by:** Grönblad, R. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (Air) **Characteristics:** Heterothallic; Mating type(−); Crosses with NIES-657 **Reference:** 567

MICRACTINIUM : Trebouxiophyceae

Micractinium bornhemiensis (Conrad) Korshikov

Syn. *Errerella bornhemiensis* Conrad

- 455 History:** < IAM (1983) **Other collection strain no.:** IAM C-341 (=C-581) **Locality:** Between Ghorepani and Billethadi/Nepal (1965-12-02) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Pond sediment) **Other strain no.:** N-76-1 **References:** 235, 567 **Remarks:** Cryopreserved

Micractinium pusillum Fresenius

- 151 History:** < Kasai, Fumie **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-07-22) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Lake water) **Gene data:** 18S-ITS1-5.8S-ITS2-28S (JX889642) **Other strain no.:** F-19-4 **References:** 360, 567, 1159 **Remarks:** Cryopreserved

MICRASTERIAS : Charophyceae

Micrasterias anomala Turner

- 774 History:** < Kasai, Fumie **Locality:** near Cairns/Queensland/Australia (1988-09-01) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22 °C ; 55-70µmol/m²/s; 3 M (25 °C ; 70-80µmol/m²/s) **Habitat:** Freshwater (Lake water) **Characteristics:** Homothallic **Other strain no.:** 88-95-12
- 776 History:** < Kasai, Fumie **Locality:** near Melaka/Malaysia (1985-08-20) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic **Other strain no.:** 85-30-38

Micrasterias crux-melitensis Ralfs

- 152** **History:** < IAM (1983) **Other collection strain no.:** IAM C-427 **Locality:** Kathmandu/Nepal (1968-05-18) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VT; 20°C; 8-15µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Sediment) **Characteristics:** Homothallic **Other strain no.:** N-90-27 **References:** 235, 567

Micrasterias foliacea Bailey ex Ralfs

- 777** **History:** < Kasai, Fumie **Locality:** 2 km southwest of Melaka/Malaysia (1985-08-19) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Crosses with NIES-778 **Other strain no.:** M2-1

- 778** **History:** < Kasai, Fumie **Locality:** 2 km southwest of Melaka/Malaysia (1985-08-19) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Crosses with NIES-777 **Other strain no.:** M2-2

Micrasterias foliacea Bailey ex Ralfs var. *foliacea*

- 297** **History:** < Kasai, Fumie **Locality:** Higashihiroshima/Hiroshima/Japan (1983-10-19) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 8-15µmol/m²/s; 3 M (25°C; 60-70µmol/m²/s) **Habitat:** Freshwater (Pond water) **Other strain no.:** 83-24-24 **Reference:** 567

Micrasterias mahabuleshwarensis Hobson

- 779** **History:** < Kasai, Fumie **Locality:** 2 km southwest of Melaka/Malaysia (1985-08-19) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Crosses with NIES-780 **Other strain no.:** M2-6

- 780** **History:** < Kasai, Fumie **Locality:** 2 km southwest of Melaka/Malaysia (1985-08-19) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Crosses with NIES-779 **Other strain no.:** M2-7

Micrasterias thomasiana Archer var. *notata* (Nordstedt) Grönblad

- 781** **History:** < Kasai, Fumie **Locality:** 2 km east of Melaka/Malaysia (1985-08-19) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Crosses with NIES-782 **Other strain no.:** 85-28-14

- 782** **History:** < Kasai, Fumie **Locality:** 2 km east of Melaka/Malaysia (1985-08-19) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Crosses with NIES-781 **Other strain no.:** 85-28-57

Micrasterias truncata (Corda) Brébisson ex Ralfs var. *pusilla* G.S. West

- 783** **History:** < Kasai, Fumie **Locality:** Sydney, Centenial Park/Australia (1988-09-03) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Heterothallic; Crosses with NIES-784 **Other strain no.:** 88-7-2

- 784** **History:** < Kasai, Fumie **Locality:** near Cairns/Queensland/Australia (1988-09-01) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Pond

water) **Characteristics:** Heterothallic; Crosses with NIES-783 **Other strain no.:** 88-8-5

MICROCYSTIS : Cyanophyceae

Microcystis aeruginosa (Kützing) Lemmermann

Syn. *Microcystis ichthyoblabe* Kützing; *Microcystis novacekii* (Komárek) Compère; *Microcystis viridis* (A.Brown) Lemmermann; *Microcystis wesenbergii* Komárek

- 44 History:** < IAM (1983) **Other collection strain no.:** IAM M-176 (=M-228) **Locality:** Lake Kasumigaura/Ibaraki/Japan (1974-08-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **Formerly identified as:** *Microcystis aeruginosa* (Kützing) Lemmermann f. *aeruginosa* **States:** Unialgal; Clonal; Axenic **Culture conditions:** CB; 25°C; 20-30µmol/m²/s; 20 D **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko); ST 1 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB015361); 16S-23S-ITS (AB015361); ftsZ (AB324850); glnA (AB324929); gltX (AB325008); gyrB (AB325087); pgi (AB325166); recA (AB325245); tpi (AB325324) **References:** 21, 50, 73, 145, 204, 235, 242, 322, 327, 350, 351, 360, 383, 477, 567, 593, 594, 595, 602, 671, 836, 973, 1009, 1010, 1053, 1056, 1059, 1060, 1066, 1121, 1159, 1171, 1231, 1257 **Remarks:** Cryopreserved
- 87 History:** < Watanabe, Makoto M. **Locality:** Lake Kasumigaura/Ibaraki/Japan (1982-09-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **Formerly identified as:** *Microcystis aeruginosa* (Kützing) Lemmermann f. *aeruginosa* **States:** Unialgal; Clonal; Axenic **Culture conditions:** MA; 25°C; 20-30µmol/m²/s; 20 D **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 2 (Tanabe et al. 2007) **Gene data:** 16S rRNA (D89031); ftsZ (AB324851); glnA (AB324930); gltX (AB325009); gyrB (AB325088); pgi (AB325167); recA (AB325246); tpi (AB325325) **Other strain no.:** K-MA-11 **References:** 275, 327, 439, 440, 441, 442, 444, 458, 477, 567, 621, 622, 623, 624, 625, 626, 627, 671, 811, 1056, 1059, 1060, 1076, 1159, 1257, 1258, 1272 **Remarks:** Cryopreserved
- 88 History:** < Watanabe, Makoto M. **Locality:** Lake Kawaguchi/Yamanashi/Japan (1981-06-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **Formerly identified as:** *Microcystis aeruginosa* (Kützing) Lemmermann f. *aeruginosa* **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 25°C; 20-30µmol/m²/s; 20 D **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 3 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB023255); ftsZ (AB324852); glnA (AB324931); gltX (AB325010); gyrB (AB325089); mcyA (AB110103); mcyD (AB110114); mcyG (AB110125); mcyJ (AB110136); pgi (AB325168); recA (AB325247); tpi (AB325326) **Other strain no.:** KW-MA1-3 **References:** 269, 270, 272, 322, 323, 325, 326, 327, 382, 401, 439, 440, 441, 442, 973, 1056, 1058, 1059, 1060, 1086, 1087, 1159, 1220, 1258, 1272 **Remarks:** Toxic; Cryopreserved
- 89 History:** < Watanabe, Makoto M. **Locality:** Lake Kawaguchi/Yamanashi/Japan (1981-06-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **Formerly identified as:** *Microcystis aeruginosa* (Kützing) Lemmermann f. *aeruginosa* **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 25°C; 20-30µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 4 (Tanabe et al. 2007) **Gene data:** 16S rRNA (U03403); ftsZ (AB324853); glnA (AB324932); gltX (AB325011); gyrB (AB325090); mcyA (AB110104); mcyD (AB110115); mcyG (AB110126); mcyJ (AB110137); pgi (AB325169); recA (AB325248); tpi (AB325327) **Other strain no.:** KW-MA2-5 **References:** 42, 134, 278, 439, 440, 441, 442, 444, 477, 567, 670, 671, 1056, 1058, 1059, 1060, 1159, 1172, 1258, 1272 **Remarks:** Toxic; Cryopreserved
- 90 History:** < Watanabe, Makoto M. **Locality:** Lake Kawaguchi/Yamanashi/Japan (1981-06-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **Formerly identified as:** *Microcystis aeruginosa* (Kützing) Lemmermann f. *aeruginosa* **States:** Unialgal; Clonal; Axenic **Culture conditions:** MA; 25°C; 20-30µmol/m²/s; 20 D **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 5 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB023256); ftsZ (AB324854); glnA (AB324933); gltX (AB325012); gyrB (AB325091); mcyA (AB110105); mcyD (AB110116); mcyG (AB110127); mcyJ (AB110138); pgi (AB325170); recA (AB325249); tpi (AB325328) **Other strain no.:** KW-MB-2 **References:** 271, 276, 439, 440, 441, 442, 457, 567, 1056, 1058, 1059, 1060, 1159, 1171, 1257, 1258, 1272

- Remarks:** Toxic; Cryopreserved
- 91 **History:** < Watanabe, Makoto M. **Locality:** Lake Kasumigaura/Ibaraki/Japan (1982-09-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **Formerly identified as:** *Microcystis aeruginosa* (Kützing) Lemmermann f. *aeruginosa* **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 25°C; 20-30µmol/m²/s; 20 D **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 77 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB023257); ftsZ (AB324926); glnA (AB325005); gltX (AB325084); gyrB (AB325163); pgi (AB325242); recA (AB325321); tpi (AB325400) **Other strain no.:** K-MB-13 **References:** 439, 440, 441, 442, 457, 567, 1056, 1059, 1060, 1159, 1272 **Remarks:** Cryopreserved
- 98 **History:** < Watanabe, Makoto M. **Locality:** Lake Kasumigaura/Ibaraki/Japan (1982-09-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **Formerly identified as:** *Microcystis aeruginosa* (Kützing) Lemmermann f. *flos-aquae* (Wittrock) Elenkin **States:** Unialgal; Clonal; Axenic **Culture conditions:** MA; 25°C; 20-30µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 6 (Tanabe et al. 2007) **Gene data:** 16S rRNA (D89032); 16S rRNA (U40337); aerA-aerB (AM773660); cpcB, cpcA (AF385384); cpcB, cpcA (AY568685); ftsZ (AB324855); glnA (AB324934); gltX (AB325013); gyrB (AB325092); hypX, umal (AB254435); pgi (AB325171); recA (AB325250); tpi (AB325329) **Other strain no.:** K-MF-K-3 **References:** 17, 42, 249, 250, 278, 279, 325, 326, 402, 439, 440, 441, 442, 444, 457, 477, 567, 577, 671, 866, 1056, 1059, 1060, 1077, 1144, 1159, 1192, 1257, 1272 **Remarks:** Cryopreserved
- 99 **History:** < Watanabe, Makoto M. **Locality:** Lake Suwa/Nagano/Japan (1982-08-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **Formerly identified as:** *Microcystis aeruginosa* (Kützing) Lemmermann f. *aeruginosa* **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 25°C; 20-30µmol/m²/s; 20 D **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 7 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB023258); cpcB, cpcA (AF385385); ftsZ (AB324856); glnA (AB324935); gltX (AB325014); gyrB (AB325093); mdnB (FN668543); pgi (AB325172); recA (AB325251); tpi (AB325330) **Other strain no.:** S-MA-S5 **References:** 268, 322, 327, 439, 440, 441, 442, 457, 567, 669, 1056, 1059, 1060, 1077, 1159, 1231, 1272 **Remarks:** Cryopreserved
- 100 **History:** < Watanabe, Makoto M. **Locality:** Lake Suwa/Nagano/Japan (1982-08-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **Formerly identified as:** *Microcystis aeruginosa* (Kützing) Lemmermann f. *aeruginosa* **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 25°C; 20-30µmol/m²/s; 20 D **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 8 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB023259); ftsZ (AB324857); glnA (AB324936); gltX (AB325015); gyrB (AB325094); pgi (AB325173); recA (AB325252); tpi (AB325331) **Other strain no.:** S-MB-S7 **References:** 403, 439, 440, 441, 442, 567, 805, 807, 870, 1056, 1059, 1060, 1144, 1159, 1217, 1272 **Remarks:** Cryopreserved
- 101 **History:** < TAC **Locality:** Lake Suwa/Nagano/Japan (1982-10-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis aeruginosa* (Kützing) Lemmermann f. *aeruginosa* **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 25°C; 20-30µmol/m²/s; 20 D **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 9 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB023260); ftsZ (AB324858); glnA (AB324937); gltX (AB325016); gyrB (AB325095); pgi (AB325174); recA (AB325253); tpi (AB325332) **Other strain no.:** TAC 48 (S-TAN-48) **References:** 42, 91, 439, 440, 441, 442, 457, 567, 630, 1056, 1059, 1060, 1144, 1159, 1251, 1272 **Remarks:** Cryopreserved
- 102 **History:** < Watanabe, Makoto M. **Locality:** Lake Kasumigaura/Ibaraki/Japan (1982-09-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **Formerly identified as:** *Microcystis viridis* (A.Brown) Lemmermann **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** MA; 25°C; 20-30µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 10 (Tanabe et al. 2007) **Gene data:** 16S rRNA (D89033); ftsZ (AB324859); glnA (AB324938); gltX (AB325017); gyrB (AB325096); mcyA (AB110106); mcyD (AB110117); mcyG (AB110128); mcyJ (AB110139); pgi (AB325175); recA

- (AB325254); tpi (AB325333) **Other strain no.:** K-MV-20 **References:** 42, 133, 151, 192, 258, 259, 263, 285, 294, 360, 384, 406, 439, 440, 441, 442, 444, 457, 458, 461, 477, 501, 567, 656, 669, 670, 671, 816, 870, 946, 994, 995, 1056, 1058, 1059, 1060, 1149, 1172, 1192, 1217, 1218, 1219, 1231, 1251, 1257, 1258, 1272 **Remarks:** Toxic
- 103 History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-12-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis viridis* (A.Brown) Lemmermann **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 25°C; 55-70µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 10 (Tanabe et al. 2007) **Gene data:** 16S rDNA (AB038530); 16S-23S ITS (AB015399); gyrB (AB014974); mcyA (AB110107); mcyD (AB110118); mcyG (AB110129); mcyJ (AB110140) **Other strain no.:** TAC 44 (K-TAN-44) **References:** 134, 151, 324, 326, 421, 567, 579, 1056, 1058, 1059, 1060, 1144, 1251 **Remarks:** Toxic; Cryopreserved
- 104 History:** < Watanabe, Makoto M. **Locality:** Imperial Palace/Tokyo/Japan (1982-11-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Axenic **Culture conditions:** CB; MA; 25°C; 55-70µmol/m²/s; 1 M **Habitat:** Freshwater (Moat water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 11 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB015387); 16S rRNA (AB023266); 16S rRNA (AJ133174); 16S-23S-ITS (AB015387); ftsZ (AB324860); glnA (AB324939); gltX (AB325018); gyrB (AB074771); gyrB (AB325097); pgi (AB325176); recA (AB325255); rpoC1 (AB074794); rpoD1 (AB074821); tpi (AB325334) **Other strain no.:** MW-H1 **References:** 439, 440, 441, 442, 444, 477, 567, 836, 937, 973, 1056, 1059, 1060, 1217, 1257, 1258, 1272 **Remarks:** Cryopreserved
- 105 History:** < Watanabe, Makoto M. **Locality:** Lake Kasumigaura/Ibaraki/Japan (1982-09-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 25°C; 55-70µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 12 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB023267); ftsZ (AB324861); glnA (AB324940); gltX (AB325019); gyrB (AB325098); pgi (AB325177); recA (AB325256); tpi (AB325335) **Other strain no.:** K-MW-K4 **References:** 439, 440, 441, 442, 444, 477, 567, 836, 937, 973, 1056, 1059, 1060, 1217, 1257, 1258, 1272 **Remarks:** Cryopreserved
- 106 History:** < Watanabe, Makoto M. **Locality:** Lake Kasumigaura/Ibaraki/Japan (1982-09-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 25°C; 55-70µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Large cell size; ST 1 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB023268) **Other strain no.:** K-MW-19 **References:** 439, 440, 441, 442, 444, 477, 567, 870, 1056, 1059, 1060, 1258, 1272 **Remarks:** Cryopreserved
- 107 History:** < Watanabe, Makoto M. **Locality:** Lake Kawaguchi/Yamanashi/Japan (1981-06-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; MA; 25 °C ; 55-70µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 13 (Tanabe et al. 2007) **Gene data:** 16S rRNA (U40333); ftsZ (AB324862); glnA (AB324941); gltX (AB325020); gyrB (AB325099); mcyA (AB110108); mcyD (AB110119); mcyG (AB110130); mcyJ (AB110141); pgi (AB325178); recA (AB325257); tpi (AB325336) **Other strain no.:** KW-MW-7 **References:** 134, 324, 325, 326, 352, 442, 443, 514, 515, 567, 669, 670, 671, 975, 1056, 1058, 1059, 1060, 1172 **Remarks:** Toxic; Cryopreserved
- 108 History:** < Watanabe, Makoto M. **Locality:** Lake Suwa/Nagano/Japan (1982-08-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 25°C; 55-70µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 14 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB023269); ftsZ (AB324863); glnA (AB324942); gltX (AB325021); gyrB (AB325100); pgi (AB325179); recA (AB325258); tpi (AB325337) **Other strain no.:** S-MW-52 **References:** 439, 440, 441, 442, 444, 477, 567, 836, 937, 973, 1056, 1059, 1060, 1172 **Remarks:** Toxic; Cryopreserved

- 1258, 1272 **Remarks:** Cryopreserved
- 109 History:** < Watanabe, Makoto M. **Locality:** Lake Yogo/Shiga/Japan (1982-07-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 25°C; 20-30µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 15 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB023270); ftsZ (AB324864); glnA (AB324943); gltX (AB325022); gyrB (AB325101); pgi (AB325180); recA (AB325259); tpi (AB325338) **Other strain no.:** Y-MW-24 **References:** 13, 14, 439, 440, 441, 442, 567, 760, 1056, 1059, 1060, 1203, 1204, 1258, 1272 **Remarks:** Cryopreserved
- 110 History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-08-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 25°C; 20-30µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 1 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB023271) **Other strain no.:** TAC 36 (K-TAN-36) **References:** 439, 440, 441, 442, 567, 1056, 1059, 1060, 1258, 1272 **Remarks:** Cryopreserved
- 111 History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-08-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Axenic **Culture conditions:** MA; 25°C; 20-30µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 14 (Tanabe et al. 2007) **Gene data:** 16S rRNA (D89034); 16S rRNA (AB015388); 6S-23S-ITS (AB015388) **Other strain no.:** TAC 37 (K-TAN-37) **References:** 439, 440, 441, 442, 444, 477, 567, 670, 671, 836, 973, 1056, 1059, 1060, 1172, 1257, 1258, 1272 **Remarks:** Cryopreserved
- 112 History:** < TAC **Locality:** Lake Suwa/Nagano/Japan (1982-10-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Axenic **Culture conditions:** MA; 25°C; 20-30µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 16 (Tanabe et al. 2007) **Gene data:** 16S rRNA (U40334); 16S rRNA (AB023272); ftsZ (AB324865); glnA (AB324944); gltX (AB325023); gyrB (AB325102); pgi (AB325181); recA (AB325260); tpi (AB325339) **Other strain no.:** TAC 52 (S-TAN-52) **References:** 151, 439, 440, 441, 442, 443, 444, 457, 477, 567, 671, 1056, 1059, 1060, 1144, 1231, 1251, 1257, 1258, 1272 **Remarks:** Cryopreserved
- 298 History:** < TAC **Other collection strain no.:** TAC 47 **Locality:** Lake Kasumigaura/Ibaraki/Japan (1982-09-16) **Isolator:** Watanabe, Masayuki **Formerly identified as:** *Microcystis aeruginosa* (Kützing) Lemmermann f. *aeruginosa* **States:** Unialgal; Clonal; Axenic **Culture conditions:** CB; 25°C; 20-30µmol/m²/s; 20 D **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 60 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB023261); ftsZ (AB324909); glnA (AB324988); gltX (AB325067); gyrB (AB325146); mcyA (AB092804); pgi (AB325225); recA (AB325304); tpi (AB325383) **Other strain no.:** TAC 47 (K-TAN-47) **References:** 11, 42, 91, 145, 151, 192, 215, 216, 258, 277, 278, 360, 439, 440, 441, 442, 444, 457, 458, 468, 469, 477, 567, 581, 671, 678, 806, 870, 1020, 1056, 1059, 1060, 1144, 1172, 1219, 1251, 1252, 1253, 1255, 1256, 1257, 1258, 1272 **Remarks:** Toxic; Unstable; Cryopreserved
- 299 History:** < Takamura, Noriko **Locality:** Lake Kasumigaura/Ibaraki/Japan (1979-08-**) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **Formerly identified as:** *Microcystis aeruginosa* (Kützing) Lemmermann f. *aeruginosa* **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 25°C; 20-30µmol/m²/s; 20 D **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 61 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB023262); ftsZ (AB324910); glnA (AB324989); gltX (AB325068); gyrB (AB325147); pgi (AB325226); recA (AB325305); tpi (AB325384) **Other strain no.:** KN1133 **References:** 145, 268, 273, 439, 440, 441, 442, 567, 1056, 1059, 1060, 1258, 1272 **Remarks:** Cryopreserved
- 478 History:** < Yagi, Osami **Locality:** Lake Kasumigaura/Ibaraki/Japan (1977-09-**) **Isolator:** Yagi, Osami **Identified by:** Yagi, Osami **Formerly identified as:** *Microcystis aeruginosa* (Kützing) Lemmermann f. *flos-aquae* (Wittrock) Elenkin **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** MA; 20°C; 4-10µmol/m²/s; 3 M (25°C; 60-70µmol/m²/s) **Habitat:** Freshwater (Lake water) **Characteristics:** Toxic; ST 62 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324911); glnA

(AB324990); gltX (AB325069); gyrB (AB325148); pgi (AB325227); recA (AB325306); tpi (AB325385) **Other strain no.:** K-5 **References:** 274, 567, 1056, 1059, 1060, 1198, 1199, 1200
Remarks: Toxic; Cryopreserved

- 604** **History:** < Yagi, Osami **Locality:** Lake Kasumigaura/Ibaraki/Japan (1977-09-**) **Isolator:** Yagi, Osami **Identified by:** Yagi, Osami **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Axenic **Culture conditions:** MA; 20°C; 4-10 μ mol/m²/s; 3 M (25°C; 60-70 μ mol/m²/s) **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 17 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB023273); ftsZ (AB324866); glnA (AB324945); gltX (AB325024); gyrB (AB325103); pgi (AB325182); recA (AB325261); tpi (AB325340) **Other strain no.:** K-3A **References:** 135, 439, 440, 441, 442, 444, 454, 457, 477, 567, 618, 944, 1056, 1059, 1060, 1077, 1198, 1251, 1257, 1258, 1272 **Remarks:** Cryopreserved
- 843** **History:** < Otsuka, Shigeto **Other collection strain no.:** IAM M-247 **Locality:** Lake Kasumigaura/Ibaraki/Japan (1997-08-28) **Isolator:** Otsuka, Shigeto **Identified by:** Otsuka, Shigeto **States:** Unialgal; Clonal; Axenic **Culture conditions:** MA; 25°C; 20-30 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; Type strain; ST 18 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB035549); chromosome (NC_010296); ftsZ (AB324867); glnA (AB324946); gltX (AB325025); gyrB (AB325104); pgi (AB325183); recA (AB325262); Total genome sequence (AP009552); tpi (AB325341) **Other strain no.:** NC7 **References:** 51, 279, 349, 457, 833, 837, 939, 940, 983, 1056, 1059, 1060, 1077 **Remarks:** Toxic; Cryopreserved
- 901** **History:** < Otsuka, Shigeto **Locality:** Dundee/Scotland/U.K. (1997-08-**) **Isolator:** Otsuka, Shigeto **Identified by:** Otsuka, Shigeto **Formerly identified as:** *Microcystis novacekii* (Komárek) Compère **States:** Unialgal; Clonal; Axenic **Culture conditions:** MA; 25°C; 20-30 μ mol/m²/s; 1 M **Habitat:** (Freshwater) **Characteristics:** Cyanobacterial water bloom (aoko); Offensive taste and odor; ST 59 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324908); glnA (AB324987); gltX (AB325066); gyrB (AB325145); pgi (AB325224); recA (AB325303); tpi (AB325382) **Other strain no.:** BC18 **References:** 833, 1056, 1059, 1060 **Remarks:** Cryopreserved
- 933** **History:** < PCC **Other collection strain no.:** PCC 7941 **Locality:** Little Rideau Lake/Ontario/Canada **Isolator:** Gorham, P. R.; Carmichael, W. W. **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; MA; 25 °C ; 20-30 μ mol/m²/s; 1 M **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 21 (Tanabe et al. 2007) **Other strain no.:** NRC-1 (SS-17) **Reference:** 1056 **Remarks:** Toxic; Cryopreserved
- 1025** **History:** < Sano, Tomoharu **Locality:** Sapporo, Chuo-ku/Hokkaido/Japan (2000-06-22) **Isolator:** Sano, Tomoharu **Identified by:** Otsuka, Shigeto **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 20-30 μ mol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic **Other strain no.:** Doutyou-1-3 **Remarks:** Toxic; Cryopreserved
- 1026** **History:** < Sano, Tomoharu **Locality:** Sapporo, Chuo-ku/Hokkaido/Japan (2000-06-22) **Isolator:** Sano, Tomoharu **Identified by:** Otsuka, Shigeto **Formerly identified as:** *Microcystis ichthyoblabe* Kützing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 20-30 μ mol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic **Other strain no.:** Doutyou-1-4 **Remarks:** Toxic; Cryopreserved
- 1027** **History:** < Sano, Tomoharu **Locality:** Lake Kasumigaura, Takahama-iri/Ibaraki/Japan (2000-08-19) **Isolator:** Sano, Tomoharu **Identified by:** Sano, Tomoharu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 20-30 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic **Other strain no.:** Takahama-Ma-2 **Remarks:** Toxic; Cryopreserved
- 1028** **History:** < Sano, Tomoharu **Locality:** Lake Teganuma/Chiba/Japan (2000-09-10) **Isolator:** Sano, Tomoharu **Identified by:** Sano, Tomoharu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 20-30 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic **Other strain no.:** TEGA-Mv-1 **Remarks:** Toxic; Cryopreserved
- 1029** **History:** < Sano, Tomoharu **Locality:** Neuglobsow/Brandenburg/Germany (2000-08-15) **Isolator:**

- Sano, Tomoharu **Identified by:** Otsuka, Shigeto **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 20-30 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic **Other strain no.:** DU-MA-6-1 **Remarks:** Toxic; Cryopreserved
- 1043 History:** < Sano, Tomoharu **Locality:** Neuglobsow/Brandenburg/Germany (2000-08-19) **Isolator:** Sano, Tomoharu **Identified by:** Sano, Tomoharu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 20-30 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic **Other strain no.:** DU-MA-4-1 **Remarks:** Toxic; Cryopreserved
- 1050 History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-01-24) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 34 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324883); glnA (AB324962); gltX (AB325041); gyrB (AB325120); pgi (AB325199); recA (AB325278); tpi (AB325357) **Other strain no.:** TAC 4 **References:** 1056, 1059, 1060, 1140 **Remarks:** Cryopreserved
- 1051 History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-01-24) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 34 (Tanabe et al. 2007) **Other strain no.:** TAC 6 **References:** 1056, 1059, 1060, 1140 **Remarks:** Cryopreserved
- 1052 History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-02-21) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 24 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324873); glnA (AB324952); gltX (AB325031); gyrB (AB325110); pgi (AB325189); recA (AB325268); tpi (AB325347) **Other strain no.:** TAC 15 **References:** 1056, 1059, 1060, 1140 **Remarks:** Cryopreserved
- 1053 History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-02-21) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis novacekii* (Komárek) Compère **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); *Microcystin* not detected; ST 25 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324874); glnA (AB324953); gltX (AB325032); gyrB (AB325111); pgi (AB325190); recA (AB325269); tpi (AB325348) **Other strain no.:** TAC 19 **References:** 840, 1056, 1059, 1060, 1140, 1143, 1144, 1146 **Remarks:** Cryopreserved
- 1054 History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-02-21) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); *Microcystin* not detected; ST 24 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB012336); 16S rRNA (AB015374) **Other strain no.:** TAC 20 **References:** 835, 836, 840, 1056, 1059, 1060, 1140, 1143, 1144, 1146 **Remarks:** Cryopreserved
- 1055 History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-08-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; Reisolated from TAC 38; ST 26 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB012334); 16S rRNA (AB015389); 16S rRNA (AB023274); ftsZ (AB324875); glnA (AB324954); gltX (AB325033); gyrB (AB325112); pgi (AB325191); recA (AB325270); tpi (AB325349) **Other strain no.:** TAC 38-1 **References:** 370, 439, 440, 441, 835, 836, 840, 1056, 1059, 1060, 1144, 1251 **Remarks:** Toxic; Cryopreserved
- 1056 History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1978-08-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii*

- Komárek **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: MA; 18°C; 15-25µmol/m²/s; **1 M Habitat**: Freshwater (Lake water) **Characteristics**: Cyanobacterial water bloom (aoko); ST 1 (Tanabe et al. 2007) **Other strain no.**: TAC 39 **References**: 1056, 1059, 1060 **Remarks**: Cryopreserved
- 1057 History**: < TAC **Locality**: Lake Kasumigaura/Ibaraki/Japan (1978-08-**) **Isolator**: Watanabe, Masayuki **Identified by**: Watanabe, Masayuki **Formerly identified as**: *Microcystis wesenbergii* Komárek **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: MA; 18°C; 15-25µmol/m²/s; **1 M Habitat**: Freshwater (Lake water) **Characteristics**: Cyanobacterial water bloom (aoko); ST 1 (Tanabe et al. 2007) **Other strain no.**: TAC 40 **References**: 870, 1056, 1059, 1060 **Remarks**: Cryopreserved
- 1058 History**: < TAC **Locality**: Lake Kasumigaura/Ibaraki/Japan (1978-12-**) **Isolator**: Watanabe, Masayuki **Identified by**: Watanabe, Masayuki **Formerly identified as**: *Microcystis viridis* (A.Brown) Lemmermann **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: MA; 18°C; 15-25µmol/m²/s; **1 M Habitat**: Freshwater (Lake water) **Characteristics**: Cyanobacterial water bloom (aoko); Toxic; Reisolated from TAC 45; ST 26 (Tanabe et al. 2007) **Gene data**: 16S rRNA (AB015400); mcyA (HM064479) **Other strain no.**: TAC 45-1 **References**: 370, 457, 836, 1056, 1059, 1060, 1144, 1251 **Remarks**: Toxic; Cryopreserved
- 1059 History**: < TAC **Locality**: Lake Kasumigaura/Ibaraki/Japan (1978-12-**) **Isolator**: Watanabe, Masayuki **Identified by**: Watanabe, Masayuki **Formerly identified as**: *Microcystis viridis* (A.Brown) Lemmermann **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: MA; 18°C; 15-25µmol/m²/s; **1 M Habitat**: Freshwater (Lake water) **Characteristics**: Cyanobacterial water bloom (aoko); Toxic; ST 26 (Tanabe et al. 2007) **Other strain no.**: TAC 46 **References**: 840, 1056, 1059, 1060, 1142, 1143, 1144 **Remarks**: Toxic; Cryopreserved
- 1060 History**: < TAC **Locality**: Lake Suwa/Nagano/Japan (1982-10-04) **Isolator**: Watanabe, Masayuki **Identified by**: Watanabe, Masayuki **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: MA; 18 °C ; 15-25µmol/m²/s; **1 M Habitat**: Freshwater (Lake water) **Characteristics**: Cyanobacterial water bloom (aoko); ST 9 (Tanabe et al. 2007) **Other strain no.**: TAC 50 **References**: 1056, 1059, 1060, 1146 **Remarks**: Cryopreserved
- 1061 History**: < TAC **Locality**: Lake Suwa/Nagano/Japan (1982-10-04) **Isolator**: Watanabe, Masayuki **Identified by**: Watanabe, Masayuki **Formerly identified as**: *Microcystis ichthyoblabe* Kützing **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: MA; 18°C; 15-25µmol/m²/s; **1 M Habitat**: Freshwater (Lake water) **Characteristics**: Cyanobacterial water bloom (aoko); Microcystin not detected; ST 9 (Tanabe et al. 2007) **Gene data**: 16S rRNA (AB023281) **Other strain no.**: TAC 51 **References**: 370, 439, 440, 441, 681, 840, 870, 1056, 1059, 1060, 1086, 1140, 1143, 1146 **Remarks**: Cryopreserved
- 1062 History**: < TAC **Locality**: Lake Suwa/Nagano/Japan (1982-10-04) **Isolator**: Watanabe, Masayuki **Identified by**: Watanabe, Masayuki **Formerly identified as**: *Microcystis wesenbergii* Komárek **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: MA; 18°C; 15-25µmol/m²/s; **1 M Habitat**: Freshwater (Lake water) **Characteristics**: Cyanobacterial water bloom (aoko); Reisolated from TAC 57; ST 14 (Tanabe et al. 2007) **Gene data**: 16S rRNA (AB015391); 16S rRNA (AB023276) **Other strain no.**: TAC 57-1 **References**: 1056, 1059, 1060, 1251 **Remarks**: Cryopreserved
- 1063 History**: < TAC **Locality**: Lake Shirakaba/Nagano/Japan (1982-09-13) **Isolator**: Watanabe, Masayuki **Identified by**: Watanabe, Masayuki **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: MA; 18°C; 15-25µmol/m²/s; **1 M Habitat**: Freshwater (Lake water) **Characteristics**: Cyanobacterial water bloom (aoko); Toxic; ST 29 (Tanabe et al. 2007) **Other strain no.**: TAC 60 **References**: 370, 815, 840, 841, 842, 1056, 1059, 1060, 1140, 1143, 1146 **Remarks**: Toxic; Cryopreserved
- 1064 History**: < TAC **Locality**: Lake Shirakaba/Nagano/Japan (1982-09-13) **Isolator**: Watanabe, Masayuki **Identified by**: Watanabe, Masayuki **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: MA; 18°C; 15-25µmol/m²/s; **1 M Habitat**: Freshwater (Lake water) **Characteristics**: Cyanobacterial water bloom (aoko); Toxic; ST 29 (Tanabe et al. 2007) **Other strain no.**: TAC 61 **References**: 370, 840, 1056, 1059, 1060, 1140, 1143, 1145, 1146 **Remarks**: Toxic; Cryopreserved

- 1065 History:** < TAC **Locality:** Lake Kutsuzawa/Nagano/Japan (1982-09-12) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 4 (Tanabe et al. 2007) **Other strain no.:** TAC 62 **References:** 1056, 1059, 1060, 1140 **Remarks:** Toxic; Cryopreserved
- 1066 History:** < TAC **Locality:** Lake Kutsuzawa/Nagano/Japan (1982-09-12) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 4 (Tanabe et al. 2007) **Other strain no.:** TAC 63 **References:** 840, 870, 1056, 1059, 1060, 1140, 1143, 1145, 1146 **Remarks:** Toxic; Cryopreserved
- 1067 History:** < TAC **Locality:** Chikatou-ike Pond/Nagano/Japan (1982-09-12) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Microcystin not detected; Reisolated from TAC 65; ST 27 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB012337); 16S rRNA (AB015375); 16S rRNA (AB023285); ftsZ (AB324876); glnA (AB324955); gltX (AB325034); gyrB (AB325113); pgi (AB325192); recA (AB325271); tpi (AB325350) **Other strain no.:** TAC 65-2 **References:** 370, 457, 681, 835, 836, 840, 1056, 1059, 1060, 1140, 1143, 1144, 1146 **Remarks:** Cryopreserved
- 1068 History:** < TAC **Locality:** Rokusuke-ike Pond/Nagano/Japan (1982-09-12) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis novacekii* (Komárek) Compère **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 24°C; 20-30µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Microcystin not detected; Reisolated from TAC 66; ST 27 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB015376); 16S rRNA (AB023286) **Other strain no.:** TAC 66-1 **References:** 370, 439, 440, 441, 681, 815, 836, 840, 1056, 1059, 1060, 1140, 1143, 1146
- 1069 History:** < TAC **Locality:** Rokusuke-ike Pond/Nagano/Japan (1982-09-12) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 35 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324884); glnA (AB324963); gltX (AB325042); gyrB (AB325121); pgi (AB325200); recA (AB325279); tpi (AB325358) **Other strain no.:** TAC 67 **References:** 1056, 1059, 1060 **Remarks:** Toxic; Cryopreserved
- 1070 History:** < TAC **Locality:** Rokusuke-ike Pond/Nagano/Japan (1982-09-12) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis ichthyoblabe* Kützing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; Reisolated from TAC 69; ST 36 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324885); glnA (AB324964); gltX (AB325043); gyrB (AB325122); pgi (AB325201); recA (AB325280); tpi (AB325359) **Other strain no.:** TAC 69-1 **References:** 370, 457, 840, 1056, 1059, 1060, 1140, 1143, 1145, 1146, 1238, 1251 **Remarks:** Toxic; Cryopreserved
- 1071 History:** < TAC **Locality:** Hakui, Ichinomiya-machi/Ishikawa/Japan (1982-09-10) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; Reisolated from TAC 70 **Other strain no.:** TAC 70-1 **References:** 370, 840, 1140, 1143, 1145, 1146 **Remarks:** Toxic; Cryopreserved
- 1072 History:** < TAC **Locality:** Hakui, Ichinomiya-machi/Ishikawa/Japan (1982-09-10) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; Reisolated from TAC 71; ST 4 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB012332); 16S rRNA (AB015362) **Other strain no.:** TAC 71-1 **References:** 835, 836, 840, 1056, 1059, 1060, 1140, 1143, 1146 **Remarks:** Toxic; Cryopreserved
- 1073 History:** < TAC **Locality:** Hakui, Ichinomiya-machi/Ishikawa/Japan (1982-09-10) **Isolator:**

- Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 72 **Remarks:** Cryopreserved
- 1074 History:** < TAC **Locality:** Lake Yogo/Shiga/Japan (1984-09-09) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Microcystin not detected; Reisolated from TAC 73 **Other strain no.:** TAC 73-1 **References:** 370, 840, 841, 842, 1140, 1143, 1146 **Remarks:** Cryopreserved
- 1075 History:** < TAC **Locality:** Lake Yogo/Shiga/Japan (1984-09-09) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 63 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324912); glnA (AB324991); gltX (AB325070); gyrB (AB325149); pgi (AB325228); recA (AB325307); tpi (AB325386) **Other strain no.:** TAC 74-1 **References:** 1056, 1059, 1060, 1140 **Remarks:** Cryopreserved
- 1076 History:** < TAC **Locality:** Lake Yogo/Shiga/Japan (1984-09-09) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Microcystin not detected; Reisolated from TAC 75; ST 64 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB023287); ftsZ (AB324913); glnA (AB324992); gltX (AB325071); gyrB (AB325150); pgi (AB325229); recA (AB325308); tpi (AB325387) **Other strain no.:** TAC 75-1 **References:** 439, 440, 441, 681, 840, 1056, 1059, 1060, 1140, 1143, 1146 **Remarks:** Cryopreserved
- 1077 History:** < TAC **Locality:** Lake Yogo/Shiga/Japan (1984-09-09) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 37 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324886); glnA (AB324965); gltX (AB325044); gyrB (AB325123); pgi (AB325202); recA (AB325281); tpi (AB325360) **Other strain no.:** TAC 76 **References:** 370, 681, 840, 1056, 1059, 1060, 1140, 1143, 1145, 1146 **Remarks:** Cryopreserved
- 1078 History:** < TAC **Locality:** Lake Mikata/Fukui/Japan (1984-09-09) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 79 **Remarks:** Cryopreserved
- 1079 History:** < TAC **Locality:** Lake Suigetsu/Fukui/Japan (1984-09-08) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis ichthyoblabae* Kützing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Microcystin not detected; Reisolated from TAC 80 **Other strain no.:** TAC 80-1 **References:** 370, 815, 840, 841, 842, 1140, 1143, 1146 **Remarks:** Cryopreserved
- 1080 History:** < TAC **Locality:** Lake Suigetsu/Fukui/Japan (1984-09-08) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Microcystin not detected; Reisolated from TAC 81 **Other strain no.:** TAC 81-1 **References:** 840, 870, 1086, 1140, 1146 **Remarks:** Cryopreserved
- 1081 History:** < TAC **Locality:** Koyama-ike Pond/Tottori/Japan (1984-09-07) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Microcystin not detected; Reisolated from TAC 82 **Other strain no.:** TAC 82-1 **References:** 370, 840, 1086, 1140, 1143, 1146 **Remarks:** Cryopreserved
- 1082 History:** < TAC **Locality:** Koyama-ike Pond/Tottori/Japan (1984-09-07) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic[2012 Nov]

- Culture conditions:** MA; 24°C; 20-30µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Reisolated from TAC 83 **Other strain no.:** TAC 83-1 **Reference:** 1140
- 1083 History:** < TAC **Locality:** Ukiginu-ike Pond/Shimane/Japan (1984-09-06) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Microcystin not detected **Other strain no.:** TAC 84 **References:** 840, 1086, 1140, 1143, 1146 **Remarks:** Cryopreserved
- 1084 History:** < TAC **Locality:** Ukiginu-ike Pond/Shimane/Japan (1984-09-06) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Microcystin not detected **Other strain no.:** TAC 85 **References:** 370, 815, 840 **Remarks:** Cryopreserved
- 1085 History:** < TAC **Locality:** Koshi-ike Pond/Shimane/Japan (1984-09-06) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; Reisolated from TAC 86; ST 28 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB012333); 16S rRNA (AB015363); ftsZ (AB324877); glnA (AB324956); gltX (AB325035); gyrB (AB325114); pgi (AB325193); recA (AB325272); tpi (AB325351) **Other strain no.:** TAC 86-1 **References:** 835, 836, 840, 841, 842, 1056, 1059, 1060, 1140, 1143, 1146 **Remarks:** Toxic; Cryopreserved
- 1086 History:** < TAC **Locality:** Koshi-ike Pond/Shimane/Japan (1984-09-06) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; Reisolated from TAC 87 **Gene data:** 16S rRNA (AB015364) **Other strain no.:** TAC 87-1 **References:** 370, 457, 836, 840, 841, 842, 1140, 1143, 1145, 1146 **Remarks:** Toxic; Cryopreserved
- 1087 History:** < TAC **Locality:** Koshi-ike Pond/Shimane/Japan (1984-09-06) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 88 **Reference:** 1140 **Remarks:** Cryopreserved
- 1088 History:** < TAC **Locality:** Koshi-ike Pond/Shimane/Japan (1984-09-06) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 89 **Reference:** 1140 **Remarks:** Cryopreserved
- 1089 History:** < TAC **Locality:** Koshi-ike Pond/Shimane/Japan (1984-09-06) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 90 **Reference:** 1140 **Remarks:** Cryopreserved
- 1090 History:** < TAC **Locality:** Lake Barato/Hokkaido/Japan (1984-08-24) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis ichthyoblabe* Kützing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Microcystin not detected; Reisolated from TAC 91; ST 2 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB012339); 16S rRNA (AB015367); 16S rRNA (AB023282) **Other strain no.:** TAC 91-1 **References:** 370, 439, 440, 441, 681, 815, 835, 836, 840, 841, 842, 1056, 1059, 1060, 1140, 1143, 1146 **Remarks:** Cryopreserved
- 1091 History:** < TAC **Locality:** Lake Barato/Hokkaido/Japan (1984-08-24) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis viridis*

- (A.Brown) Lemmermann **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; Reisolated from TAC 92; ST 26 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB015402); 16S rRNA (AB023278) **Other strain no.:** TAC 92-1 **References:** 370, 439, 440, 441, 681, 836, 840, 1056, 1059, 1060, 1142, 1143, 1144, 1238, 1251 **Remarks:** Toxic; Cryopreserved
- 1092 History:** < TAC **Locality:** Lake Barato/Hokkaido/Japan (1984-08-24) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; Reisolated from TAC 93; ST 26 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB015403) **Other strain no.:** TAC 93-1 **References:** 836, 1056, 1059, 1060 **Remarks:** Toxic; Cryopreserved
- 1093 History:** < TAC **Locality:** Lake Barato/Hokkaido/Japan (1984-08-24) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; Reisolated from TAC 95; ST 65 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324914); glnA (AB324993); gltX (AB325072); gyrB (AB325151); pgi (AB325230); recA (AB325309); tpi (AB325388) **Other strain no.:** TAC 95-1 **References:** 370, 815, 840, 1056, 1059, 1060, 1140, 1143, 1145, 1146 **Remarks:** Toxic; Cryopreserved
- 1094 History:** < TAC **Locality:** Lake Shirakaba/Nagano/Japan (1984-09-13) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 39 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324888); glnA (AB324967); gltX (AB325046); gyrB (AB325125); pgi (AB325204); recA (AB325283); tpi (AB325362) **Other strain no.:** TAC 96 **References:** 1056, 1059, 1060 **Remarks:** Cryopreserved
- 1095 History:** < TAC **Locality:** Lake Shirakaba/Nagano/Japan (1984-09-13) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 29 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324878); glnA (AB324957); gltX (AB325036); gyrB (AB325115); pgi (AB325194); recA (AB325273); tpi (AB325352) **Other strain no.:** TAC 97 **References:** 370, 840, 1056, 1059, 1060, 1140, 1143, 1145, 1146 **Remarks:** Toxic; Cryopreserved
- 1096 History:** < TAC **Locality:** Lake Shirakaba/Nagano/Japan (1984-09-13) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 39 (Tanabe et al. 2007) **Other strain no.:** TAC 98 **References:** 1056, 1059, 1060 **Remarks:** Cryopreserved
- 1097 History:** < TAC **Locality:** Shigure Dam/Tokyo/Japan (1984-11-**) **Isolator:** Watanabe, Yasunori **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 28 (Tanabe et al. 2007) **Other strain no.:** TAC 109 **References:** 370, 840, 1056, 1059, 1060, 1140, 1143, 1146 **Remarks:** Toxic; Cryopreserved
- 1098 History:** < TAC **Locality:** Shigure Dam/Tokyo/Japan (1984-11-**) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Microcystin not detected; Reisolated from TAC 110; ST 38 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324887); glnA (AB324966); gltX (AB325045); gyrB (AB325124); pgi (AB325203); recA (AB325282); tpi (AB325361) **Other strain no.:** TAC 110-1 **References:** 370, 457, 840, 1056, 1059, 1060, 1086, 1140, 1143, 1146 **Remarks:** Cryopreserved
- 1099 History:** < TAC **Locality:** Noborio-ike Pond/Ehime/Japan (1988-10-21) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; Reisolated from TAC 113 **Other strain no.:** TAC

- 113-1 **References:** 815, 840, 1140, 1143, 1145, 1146 **Remarks:** Toxic; Cryopreserved
- 1100 History:** < TAC **Locality:** Kathmandu/Nepal (1988-11-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko); Reisolated from TAC 114; ST 30 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324879); glnA (AB324958); gltX (AB325037); gyrB (AB325116); pgi (AB325195); recA (AB325274); tpi (AB325353) **Other strain no.:** TAC 114-1 **References:** 1056, 1059, 1060 **Remarks:** Cryopreserved
- 1101 History:** < TAC **Locality:** Kathmandu/Nepal (1988-11-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko); Reisolated from TAC 115; ST 40 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324889); glnA (AB324968); gltX (AB325047); gyrB (AB325126); pgi (AB325205); recA (AB325284); tpi (AB325363) **Other strain no.:** TAC 115-1 **References:** 1056, 1059, 1060 **Remarks:** Cryopreserved
- 1102 History:** < TAC **Locality:** Lake Barato/Hokkaido/Japan (1989-08-02) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis viridis* (A.Brown) Lemmermann **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 66 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324915); glnA (AB324994); gltX (AB325073); gyrB (AB325152); pgi (AB325231); recA (AB325310); tpi (AB325389) **Other strain no.:** TAC 122 **References:** 1056, 1059, 1060 **Remarks:** Toxic; Cryopreserved
- 1103 History:** < TAC **Locality:** Lake Barato/Hokkaido/Japan (1989-08-02) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis viridis* (A.Brown) Lemmermann **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 66 (Tanabe et al. 2007) **Other strain no.:** TAC 123 **References:** 1056, 1059, 1060 **Remarks:** Toxic; Cryopreserved
- 1104 History:** < TAC **Locality:** Lake Barato/Hokkaido/Japan (1989-08-02) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis viridis* (A.Brown) Lemmermann **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 67 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324916); glnA (AB324995); gltX (AB325074); gyrB (AB325153); pgi (AB325232); recA (AB325311); tpi (AB325390) **Other strain no.:** TAC 124 **References:** 1056, 1059, 1060, 1086 **Remarks:** Cryopreserved
- 1105 History:** < TAC **Locality:** Lake Barato/Hokkaido/Japan (1989-08-02) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis ichthyooblabe* Kützing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; Reisolated from TAC 125; ST 31 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB015368); 16S rRNA (AB023283); ftsZ (AB324880); glnA (AB324959); gltX (AB325038); gyrB (AB325117); pgi (AB325196); recA (AB325275); tpi (AB325354) **Other strain no.:** TAC 125-1 **References:** 439, 440, 441, 457, 681, 836, 1056, 1059, 1060, 1140, 1251 **Remarks:** Toxic; Cryopreserved
- 1106 History:** < TAC **Locality:** Shin-ike Pond/Nagano/Japan (1989-08-02) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 41 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324890); glnA (AB324969); gltX (AB325048); gyrB (AB325127); pgi (AB325206); recA (AB325285); tpi (AB325364) **Other strain no.:** TAC 126 **References:** 1056, 1059, 1060 **Remarks:** Cryopreserved
- 1107 History:** < TAC **Locality:** Kamisawa-ike Pond/Nagano/Japan (1989-08-02) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:**

- Cyanobacterial water bloom (aoko); Microcystin not detected; ST 42 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324891); glnA (AB324970); gltX (AB325049); gyrB (AB325128); pgi (AB325207); recA (AB325286); tpi (AB325365) **Other strain no.:** TAC 128 **References:** 1056, 1059, 1060, 1140, 1238 **Remarks:** Cryopreserved
- 1108 History:** < TAC **Locality:** Kamisawa-ike Pond/Nagano/Japan (1989-08-02) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 43 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324892); glnA (AB324971); gltX (AB325050); gyrB (AB325129); pgi (AB325208); recA (AB325287); tpi (AB325366) **Other strain no.:** TAC 129 **References:** 1056, 1059, 1060, 1140 **Remarks:** Toxic; Cryopreserved
- 1109 History:** < TAC **Locality:** Dazaifu C.C./Fukuoka/Japan (1989-07-10) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 130 **Reference:** 1140 **Remarks:** Cryopreserved
- 1110 History:** < TAC **Locality:** Dazaifu C.C./Fukuoka/Japan (1989-07-10) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 131 **Reference:** 1140 **Remarks:** Cryopreserved
- 1111 History:** < TAC **Locality:** Dazaifu C.C./Fukuoka/Japan (1989-07-10) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 132 **Remarks:** Cryopreserved
- 1112 History:** < TAC **Locality:** Dazaifu C.C./Fukuoka/Japan (1989-07-10) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 133 **Remarks:** Cryopreserved
- 1113 History:** < TAC **Locality:** Lake Suwa/Nagano/Japan (1989-07-24) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 51 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324900); glnA (AB324979); gltX (AB325058); gyrB (AB325137); pgi (AB325216); recA (AB325295); tpi (AB325374) **Other strain no.:** TAC 134 **References:** 1056, 1059, 1060, 1140 **Remarks:** Cryopreserved
- 1114 History:** < TAC **Locality:** Lake Suwa/Nagano/Japan (1989-07-24) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis viridis* (A.Brown) Lemmermann **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 52 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324901); glnA (AB324980); gltX (AB325059); gyrB (AB325138); pgi (AB325217); recA (AB325296); tpi (AB325375) **Other strain no.:** TAC 135 **References:** 1056, 1059, 1060 **Remarks:** Toxic; Cryopreserved
- 1115 History:** < TAC **Locality:** Showa-tameike Pond/Fukuoka/Japan (1989-08-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Reisolated from TAC 136; ST 44 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB015369); ftsZ (AB324893); glnA (AB324972); gltX (AB325051); gyrB (AB325130); pgi (AB325209); recA (AB325288); tpi (AB325367) **Other strain no.:** TAC 136-1 **References:** 836, 1056, 1059, 1060, 1140 **Remarks:** Cryopreserved
- 1116 History:** < TAC **Locality:** Showa-tameike Pond/Fukuoka/Japan (1989-08-28) **Isolator:** Watanabe,

- Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 24°C; 20-30 μ mol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 137 **Reference:** 1140
- 1117 History:** < TAC **Locality:** Showa-tameike Pond/Fukuoka/Japan (1989-08-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); Reisolated from TAC 138 **Gene data:** 16S rRNA (AB015370) **Other strain no.:** TAC 138-1 **References:** 836, 1140 **Remarks:** Cryopreserved
- 1118 History:** < TAC **Locality:** Showa-tameike Pond/Fukuoka/Japan (1989-08-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis viridis* (A.Brown) Lemmermann **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 141 **Remarks:** Cryopreserved
- 1119 History:** < TAC **Locality:** Showa-tameike Pond/Fukuoka/Japan (1989-08-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 143 **Remarks:** Cryopreserved
- 1120 History:** < TAC **Locality:** Showa-tameike Pond/Fukuoka/Japan (1989-08-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 144 **Remarks:** Cryopreserved
- 1121 History:** < TAC **Locality:** Showa-tameike Pond/Fukuoka/Japan (1989-08-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 145 **Remarks:** Cryopreserved
- 1122 History:** < TAC **Locality:** Lake Ohnuma/Hokkaido/Japan (1989-09-05) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis ichthyoblakeae* Kützing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Reisolated from TAC 146; ST 45 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB023284); ftsZ (AB324894); glnA (AB324973); gltX (AB325052); gyrB (AB325131); pgi (AB325210); recA (AB325289); tpi (AB325368) **Other strain no.:** TAC 146-1 **References:** 439, 440, 441, 681, 1056, 1059, 1060, 1140 **Remarks:** Cryopreserved
- 1123 History:** < TAC **Locality:** Lake Ohnuma/Hokkaido/Japan (1989-09-05) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 24°C; 20-30 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 27 (Tanabe et al. 2007) **Other strain no.:** TAC 147 **References:** 1056, 1059, 1060
- 1124 History:** < TAC **Locality:** Lake Ohnuma/Hokkaido/Japan (1989-09-05) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 24°C; 20-30 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 27 (Tanabe et al. 2007) **Other strain no.:** TAC 148 **References:** 1056, 1059, 1060, 1140
- 1125 History:** < TAC **Locality:** Lake Ohnuma/Hokkaido/Japan (1989-09-05) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 27 (Tanabe et al. 2007) **Other strain no.:** TAC 149 **References:** 1056, 1059, 1060, 1140 **Remarks:** Cryopreserved
- 1126 History:** < TAC **Locality:** Lake Ohnuma/Hokkaido/Japan (1989-09-05) **Isolator:** Watanabe,

Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 73 (Tanabe et al. 2007) **Other strain no.:** TAC 150 **References:** 1056, 1059, 1060, 1140 **Remarks:** Toxic; Cryopreserved

- 1127 **History:** < TAC **Locality:** Lake Ohnuma/Hokkaido/Japan (1989-09-05) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 73 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324922); glnA (AB325001); gltX (AB325080); gyrB (AB325159); pgi (AB325238); recA (AB325317); tpi (AB325396) **Other strain no.:** TAC 151 **References:** 1056, 1059, 1060, 1140 **Remarks:** Toxic; Cryopreserved
- 1128 **History:** < TAC **Locality:** Lake Ohnuma/Hokkaido/Japan (1989-09-05) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** Microcystis wesenbergii Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 46 (Tanabe et al. 2007) **Other strain no.:** TAC 152 **References:** 1056, 1059, 1060 **Remarks:** Cryopreserved
- 1129 **History:** < TAC **Locality:** Lake Ohnuma/Hokkaido/Japan (1989-09-05) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** Microcystis wesenbergii Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 46 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324895); glnA (AB324974); gltX (AB325053); gyrB (AB325132); pgi (AB325211); recA (AB325290); tpi (AB325369) **Other strain no.:** TAC 153 **References:** 1056, 1059, 1060 **Remarks:** Cryopreserved
- 1130 **History:** < TAC **Locality:** Lake Teganuma/Chiba/Japan (1989-09-13) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Reisolated from TAC 154; ST 75 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324924); glnA (AB325003); gltX (AB325082); gyrB (AB325161); pgi (AB325240); recA (AB325319); tpi (AB325398) **Other strain no.:** TAC 154-1 **References:** 1056, 1059, 1060, 1140 **Remarks:** Cryopreserved
- 1131 **History:** < TAC **Locality:** Lake Teganuma/Chiba/Japan (1989-09-13) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 76 (Tanabe et al. 2007) **Other strain no.:** TAC 155 **References:** 1056, 1059, 1060 **Remarks:** Toxic; Cryopreserved
- 1132 **History:** < TAC **Locality:** Lake Teganuma/Chiba/Japan (1989-09-13) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Reisolated from TAC 156; ST 74 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324923); glnA (AB325002); gltX (AB325081); gyrB (AB325160); pgi (AB325239); recA (AB325318); tpi (AB325397) **Other strain no.:** TAC 156-1 **References:** 1056, 1059, 1060, 1140 **Remarks:** Cryopreserved
- 1133 **History:** < TAC **Locality:** Lake Teganuma/Chiba/Japan (1989-09-13) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; Reisolated from TAC 157; ST 76 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB023263); ftsZ (AB324925); glnA (AB325004); gltX (AB325083); gyrB (AB325162); pgi (AB325241); recA (AB325320); tpi (AB325399) **Other strain no.:** TAC 157-2 **References:** 681, 1056, 1059, 1060, 1140 **Remarks:** Toxic; Cryopreserved
- 1134 **History:** < TAC **Locality:** Lake Teganuma/Chiba/Japan (1989-09-13) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:**

- Cyanobacterial water bloom (aoko); Reisolated from TAC 159; ST 48 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324897); glnA (AB324976); gltX (AB325055); gyrB (AB325134); pgi (AB325213); recA (AB325292); tpi (AB325371) **Other strain no.:** TAC 159-1 **References:** 1056, 1059, 1060, 1140 **Remarks:** Cryopreserved
- 1135 History:** < TAC **Locality:** Lake Teganuma/Chiba/Japan (1989-09-13) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Reisolated from TAC 160; ST 48 (Tanabe et al. 2007) **Other strain no.:** TAC 160-1 **References:** 1056, 1059, 1060 **Remarks:** Cryopreserved
- 1136 History:** < TAC **Locality:** Lake Teganuma/Chiba/Japan (1989-09-13) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis viridis* (A.Brown) Lemmermann **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 26 (Tanabe et al. 2007) **Other strain no.:** TAC 162 **References:** 1056, 1059, 1060 **Remarks:** Toxic; Cryopreserved
- 1137 History:** < TAC **Locality:** Lake Teganuma/Chiba/Japan (1989-09-13) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 1 (Tanabe et al. 2007) **Other strain no.:** TAC 163 **References:** 1056, 1059, 1060, 1086 **Remarks:** Cryopreserved
- 1138 History:** < TAC **Locality:** Lake Teganuma/Chiba/Japan (1989-09-13) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Reisolated from TAC 164; ST 1 (Tanabe et al. 2007) **Other strain no.:** TAC 164-1 **References:** 1056, 1059, 1060 **Remarks:** Cryopreserved
- 1139 History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 55 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324904); glnA (AB324983); gltX (AB325062); gyrB (AB325141); pgi (AB325220); recA (AB325299); tpi (AB325378) **Other strain no.:** TAC 165 **References:** 1056, 1059, 1060, 1140 **Remarks:** Cryopreserved
- 1140 History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 4 (Tanabe et al. 2007) **Other strain no.:** TAC 166 **References:** 371, 840, 1056, 1059, 1060, 1140, 1143, 1146 **Remarks:** Toxic; Cryopreserved
- 1141 History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 55 (Tanabe et al. 2007) **Other strain no.:** TAC 167 **References:** 371, 1056, 1059, 1060, 1140 **Remarks:** Toxic; Cryopreserved
- 1142 History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 56 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB023264); ftsZ (AB324905); glnA (AB324984); gltX (AB325063); gyrB (AB325142); pgi (AB325221); recA (AB325300); tpi (AB325379) **Other strain no.:** TAC 169 **References:** 439, 440, 441, 681, 1056, 1059, 1060, 1140, 1146 **Remarks:** Cryopreserved
- 1143 History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis novacekii*

(Komárek) Compère **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; Reisolated from TAC 170; ST 57 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB012340); 16S rRNA (AB015365); ftsZ (AB324906); glnA (AB324985); gltX (AB325064); gyrB (AB325143); pgi (AB325222); recA (AB325301); tpi (AB325380) **Other strain no.:** TAC 170-1 **References:** 835, 836, 1056, 1059, 1060 **Remarks:** Toxic; Cryopreserved

- 1144 History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 58 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324907); glnA (AB324986); gltX (AB325065); gyrB (AB325144); pgi (AB325223); recA (AB325302); tpi (AB325381) **Other strain no.:** TAC 171 **References:** 1056, 1059, 1060 **Remarks:** Cryopreserved
- 1145 History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 58 (Tanabe et al. 2007) **Other strain no.:** TAC 172 **References:** 371, 1056, 1059, 1060 **Remarks:** Cryopreserved
- 1146 History:** < TAC **Locality:** Lake Shirakaba/Nagano/Japan (1989-08-23) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 39 (Tanabe et al. 2007) **Other strain no.:** TAC 173 **References:** 1056, 1059, 1060, 1140 **Remarks:** Cryopreserved
- 1147 History:** < TAC **Locality:** Lake Shirakaba/Nagano/Japan (1989-08-23) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 39 (Tanabe et al. 2007) **Other strain no.:** TAC 174 **References:** 1056, 1059, 1060, 1140 **Remarks:** Cryopreserved
- 1148 History:** < TAC **Locality:** Lake Shirakaba/Nagano/Japan (1989-08-23) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 29 (Tanabe et al. 2007) **Other strain no.:** TAC 175 **References:** 1056, 1059, 1060 **Remarks:** Toxic; Cryopreserved
- 1149 History:** < TAC **Locality:** Lake Shirakaba/Nagano/Japan (1989-08-23) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 29 (Tanabe et al. 2007) **Other strain no.:** TAC 176 **References:** 1056, 1059, 1060, 1140 **Remarks:** Toxic; Cryopreserved
- 1150 History:** < TAC **Locality:** Lake Shirakaba/Nagano/Japan (1989-08-23) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 49 (Tanabe et al. 2007) **Other strain no.:** TAC 177 **References:** 1056, 1059, 1060 **Remarks:** Toxic; Cryopreserved
- 1151 History:** < TAC **Locality:** Lake Shirakaba/Nagano/Japan (1989-08-23) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 49 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324898); glnA (AB324977); gltX (AB325056); gyrB (AB325135); pgi (AB325214); recA (AB325293); tpi (AB325372) **Other strain no.:** TAC 178 **References:** 1056, 1059, 1060 **Remarks:** Toxic; Cryopreserved
- 1152 History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture**

- conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 55 (Tanabe et al. 2007) **Other strain no.:** TAC 179 **References:** 371, 1056, 1059, 1060, 1140 **Remarks:** Toxic; Cryopreserved
- 1153 History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 55 (Tanabe et al. 2007) **Other strain no.:** TAC 180 **References:** 1056, 1059, 1060, 1140 **Remarks:** Toxic; Cryopreserved
- 1154 History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 181 **References:** 840, 841, 1140 **Remarks:** Cryopreserved
- 1155 History:** < TAC **Locality:** Lake Teganuma/Chiba/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 29 (Tanabe et al. 2007) **Other strain no.:** TAC 182 **References:** 1056, 1059, 1060, 1140 **Remarks:** Toxic; Cryopreserved
- 1156 History:** < TAC **Locality:** Lake Shirakaba/Nagano/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 29 (Tanabe et al. 2007) **Other strain no.:** TAC 183 **References:** 1056, 1059, 1060 **Remarks:** Toxic; Cryopreserved
- 1157 History:** < TAC **Locality:** Lake Teganuma/Chiba/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 48 (Tanabe et al. 2007) **Other strain no.:** TAC 185 **References:** 1056, 1059, 1060, 1140 **Remarks:** Cryopreserved
- 1158 History:** < TAC **Locality:** Yame/Fukuoka/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 186 **References:** Cryopreserved
- 1159 History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 55 (Tanabe et al. 2007) **Other strain no.:** TAC 187 **References:** 371, 1056, 1059, 1060, 1140 **Remarks:** Toxic; Cryopreserved
- 1160 History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 55 (Tanabe et al. 2007) **Other strain no.:** TAC 188 **References:** 371, 1056, 1059, 1060, 1140 **Remarks:** Toxic; Cryopreserved
- 1161 History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 55 (Tanabe et al. 2007) **Other strain no.:** TAC 189 **References:** 371, 1056, 1059, 1060, 1140 **Remarks:** Toxic; Cryopreserved
- 1162 History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 55 (Tanabe et al. 2007) **Other strain no.:** TAC 190

- References:** 1056, 1059, 1060, 1140 **Remarks:** Toxic; Cryopreserved
- 1163 History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 55 (Tanabe et al. 2007) **Other strain no.:** TAC 191 **References:** 371, 1056, 1059, 1060, 1140 **Remarks:** Toxic; Cryopreserved
- 1164 History:** < TAC **Locality:** Lake Okutama/Tokyo/Japan (1989-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 55 (Tanabe et al. 2007) **Gene data:** 16S rRNA (AB023265) **Other strain no.:** TAC 192 **References:** 439, 440, 441, 681, 1056, 1059, 1060, 1140 **Remarks:** Toxic; Cryopreserved
- 1165 History:** < TAC **Locality:** Tsuruoka Park/Yamagata/Japan (1990-08-04) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Moat water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 193 **Remarks:** Cryopreserved
- 1166 History:** < TAC **Locality:** Tsuruoka Park/Yamagata/Japan (1990-08-04) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Moat water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 194 **Remarks:** Cryopreserved
- 1167 History:** < TAC **Locality:** Tsuruoka Park/Yamagata/Japan (1990-08-04) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **Formerly identified as:** Microcystis wesenbergii Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Moat water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 195 **Remarks:** Cryopreserved
- 1168 History:** < TAC **Locality:** Tsuruoka Park/Yamagata/Japan (1990-08-04) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **Formerly identified as:** Microcystis wesenbergii Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Moat water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 196 **Remarks:** Cryopreserved
- 1169 History:** < TAC **Locality:** Tsuruoka Park/Yamagata/Japan (1990-08-04) **Isolator:** Niiyama, Yuko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Moat water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 197 **Remarks:** Cryopreserved
- 1170 History:** < TAC **Locality:** Lake Barato/Hokkaido/Japan (1990-08-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** Microcystis wesenbergii Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 50 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324899); glnA (AB324978); gltX (AB325057); gyrB (AB325136); pgi (AB325215); recA (AB325294); tpi (AB325373) **Other strain no.:** TAC 198 **References:** 1056, 1059, 1060 **Remarks:** Cryopreserved
- 1171 History:** < TAC **Locality:** Lake Barato/Hokkaido/Japan (1990-08-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** Microcystis wesenbergii Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 50 (Tanabe et al. 2007) **Other strain no.:** TAC 199 **References:** 1056, 1059, 1060 **Remarks:** Cryopreserved
- 1172 History:** < TAC **Locality:** Lake Barato/Hokkaido/Japan (1990-08-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** Microcystis wesenbergii Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 50 (Tanabe et al. 2007) **Other strain no.:** TAC 200 **References:** 1056, 1059, 1060 **Remarks:**

- Cryopreserved
- 1173 **History:** < TAC **Locality:** Saburo-ike Pond/Kagawa/Japan (1990-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 4 (Tanabe et al. 2011) **Other strain no.:** TAC 311 **References:** 1060, 1140 **Remarks:** Cryopreserved
- 1174 **History:** < TAC **Locality:** Saburo-ike Pond/Kagawa/Japan (1990-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 188 (Tanabe et al. 2011) **Other strain no.:** TAC 312 **Reference:** 1060 **Remarks:** Cryopreserved
- 1175 **History:** < TAC **Locality:** Saburo-ike Pond/Kagawa/Japan (1990-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 189 (Tanabe et al. 2011) **Other strain no.:** TAC 313 **Reference:** 1060 **Remarks:** Cryopreserved
- 1176 **History:** < TAC **Locality:** Saburo-ike Pond/Kagawa/Japan (1990-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 135 (Tanabe et al. 2011) **Other strain no.:** TAC 314 **Reference:** 1060 **Remarks:** Cryopreserved
- 1177 **History:** < TAC **Locality:** Saburo-ike Pond/Kagawa/Japan (1990-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 190 (Tanabe et al. 2011) **Other strain no.:** TAC 315 **Reference:** 1060 **Remarks:** Cryopreserved
- 1178 **History:** < TAC **Locality:** Shin-ike Pond/Kagawa/Japan (1990-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 316 **Reference:** 1140 **Remarks:** Cryopreserved
- 1179 **History:** < TAC **Locality:** Shin-ike Pond/Kagawa/Japan (1990-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 191 (Tanabe et al. 2011) **Other strain no.:** TAC 317 **Reference:** 1060 **Remarks:** Cryopreserved
- 1180 **History:** < TAC **Locality:** Shin-ike Pond/Kagawa/Japan (1990-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis viridis* (A.Brown) Lemmermann **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 26 (Tanabe et al. 2011) **Other strain no.:** TAC 319 **Reference:** 1060 **Remarks:** Cryopreserved
- 1181 **History:** < TAC **Locality:** Shin-ike Pond/Kagawa/Japan (1990-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 192 (Tanabe et al. 2011) **Other strain no.:** TAC 320 **Reference:** 1060 **Remarks:** Cryopreserved
- 1182 **History:** < TAC **Locality:** Sakase-ike Pond/Kagawa/Japan (1990-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis ichthyoblabe* Kützing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 321 **Reference:** 1140 **Remarks:** Cryopreserved

- 1183 History:** < TAC **Locality:** Sakase-ike Pond/Kagawa/Japan (1990-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis ichthyoblabae* Kützing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 193 (Tanabe et al. 2011) **Other strain no.:** TAC 322 **References:** 1060, 1140 **Remarks:** Cryopreserved
- 1184 History:** < TAC **Locality:** Sakase-ike Pond/Kagawa/Japan (1990-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 193 (Tanabe et al. 2011) **Other strain no.:** TAC 323 **References:** 1060, 1140 **Remarks:** Cryopreserved
- 1185 History:** < TAC **Locality:** Sakase-ike Pond/Kagawa/Japan (1990-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 194 (Tanabe et al. 2011) **Other strain no.:** TAC 325 **Reference:** 1060 **Remarks:** Cryopreserved
- 1186 History:** < TAC **Locality:** Sakase-ike Pond/Kagawa/Japan (1990-09-17) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 194 (Tanabe et al. 2011) **Other strain no.:** TAC 326 **Reference:** 1060 **Remarks:** Cryopreserved
- 1187 History:** < TAC **Locality:** Lake Heiso/Hyogo/Japan (1990-09-16) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 327 **Reference:** 1140 **Remarks:** Cryopreserved
- 1188 History:** < TAC **Locality:** Lake Heiso/Hyogo/Japan (1990-09-16) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 328 **Remarks:** Cryopreserved
- 1189 History:** < TAC **Locality:** Lake Heiso/Hyogo/Japan (1990-09-16) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 329 **Reference:** 1140 **Remarks:** Cryopreserved
- 1190 History:** < TAC **Locality:** Lake Heiso/Hyogo/Japan (1990-09-16) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 330 **Remarks:** Cryopreserved
- 1191 History:** < TAC **Locality:** Lake Heiso/Hyogo/Japan (1990-09-16) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 331 **Remarks:** Cryopreserved
- 1192 History:** < TAC **Locality:** Lake Heiso/Hyogo/Japan (1990-09-16) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 332 **Remarks:** Cryopreserved
- 1193 History:** < TAC **Locality:** Lake Heiso/Hyogo/Japan (1990-09-16) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 333 **Remarks:** Cryopreserved

- 1194 History:** < TAC **Locality:** Lake Heiso/Hyogo/Japan (1990-09-16) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 335 **Reference:** 1140 **Remarks:** Cryopreserved
- 1195 History:** < TAC **Locality:** Lake Heiso/Hyogo/Japan (1990-09-16) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 336 **Remarks:** Cryopreserved
- 1196 History:** < TAC **Locality:** Lake Heiso/Hyogo/Japan (1990-09-16) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 337 **Reference:** 1140 **Remarks:** Cryopreserved
- 1197 History:** < TAC **Locality:** Lake Heiso/Hyogo/Japan (1990-09-16) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 338 **Remarks:** Cryopreserved
- 1198 History:** < TAC **Locality:** Futago-ike Pond/Hyogo/Japan (1990-09-16) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 339 **Reference:** 1140 **Remarks:** Cryopreserved
- 1199 History:** < TAC **Locality:** Futago-ike Pond/Hyogo/Japan (1990-09-16) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 340 **Remarks:** Cryopreserved
- 1200 History:** < TAC **Locality:** Shinjiaika-ike Pond/Shimane/Japan (1990-09-18) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 341 **Reference:** 1140 **Remarks:** Cryopreserved
- 1201 History:** < TAC **Locality:** Shinjiaika-ike Pond/Shimane/Japan (1990-09-18) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 342 **Remarks:** Cryopreserved
- 1202 History:** < TAC **Locality:** Shinjiaika-ike Pond/Shimane/Japan (1990-09-18) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 343 **Remarks:** Cryopreserved
- 1203 History:** < TAC **Locality:** Shinjiaika-ike Pond/Shimane/Japan (1990-09-18) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 344 **Reference:** 1140 **Remarks:** Cryopreserved
- 1204 History:** < TAC **Locality:** Shinjiaika-ike Pond/Shimane/Japan (1990-09-18) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 345 **Remarks:** Cryopreserved
- 1205 History:** < TAC **Locality:** Johoku-ike Pond/Shimane/Japan (1990-09-18) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture**

- conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 346 **Reference:** 1140 **Remarks:** Cryopreserved
- 1206 History:** < TAC **Locality:** Johoku-ike Pond/Shimane/Japan (1990-09-18) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 24°C; 20-30µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 347 **Reference:** 1140
- 1207 History:** < TAC **Locality:** Johoku-ike Pond/Shimane/Japan (1990-09-18) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** Microcystis wesenbergii Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 348 **Remarks:** Cryopreserved
- 1208 History:** < TAC **Locality:** Johoku-ike Pond/Shimane/Japan (1990-09-18) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** Microcystis wesenbergii Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 349 **Remarks:** Cryopreserved
- 1209 History:** < TAC **Locality:** Lake Toro/Hokkaido/Japan (1990-09-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 32 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324881); glnA (AB324960); gltX (AB325039); gyrB (AB325118); pgi (AB325197); recA (AB325276); tpi (AB325355) **Other strain no.:** TAC 350 **References:** 1056, 1059, 1060, 1140 **Remarks:** Toxic; Cryopreserved
- 1210 History:** < TAC **Locality:** Lake Toro/Hokkaido/Japan (1990-09-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 351 **Remarks:** Cryopreserved
- 1211 History:** < TAC **Locality:** Lake Tofutsu/Hokkaido/Japan (1990-09-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 24°C; 20-30µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 47 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324896); glnA (AB324975); gltX (AB325054); gyrB (AB325133); pgi (AB325212); recA (AB325291); tpi (AB325370) **Other strain no.:** TAC 352 **References:** 1056, 1059, 1060
- 1212 History:** < TAC **Locality:** Lake Tofutsu/Hokkaido/Japan (1990-09-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 353 **Reference:** 684 **Remarks:** Cryopreserved
- 1213 History:** < TAC **Locality:** Kunma Dam/Okinawa/Japan (1990-10-26) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 68 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324917); glnA (AB324996); gltX (AB325075); gyrB (AB325154); pgi (AB325233); recA (AB325312); tpi (AB325391) **Other strain no.:** TAC 355 **References:** 438, 684, 1056, 1059, 1060, 1140 **Remarks:** Toxic; Cryopreserved
- 1214 History:** < TAC **Locality:** Kunma Dam/Okinawa/Japan (1990-10-26) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 69 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324918); glnA (AB324997); gltX (AB325076); gyrB (AB325155); pgi (AB325234); recA (AB325313); tpi (AB325392) **Other strain no.:** TAC 356 **References:** 1056,

- 1059, 1060 **Remarks:** Toxic; Cryopreserved
- 1215 History:** < TAC **Locality:** Kunma Dam/Okinawa/Japan (1990-10-26) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 70 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324919); glnA (AB324998); gltX (AB325077); gyrB (AB325156); pgi (AB325235); recA (AB325314); tpi (AB325393) **Other strain no.:** TAC 357 **References:** 1056, 1059, 1060 **Remarks:** Toxic; Cryopreserved
- 1216 History:** < TAC **Locality:** Kunma Dam/Okinawa/Japan (1990-10-26) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 71 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324920); glnA (AB324999); gltX (AB325078); gyrB (AB325157); pgi (AB325236); recA (AB325315); tpi (AB325394) **Other strain no.:** TAC 358 **References:** 1056, 1059, 1060, 1140 **Remarks:** Cryopreserved
- 1217 History:** < TAC **Locality:** Kunma Dam/Okinawa/Japan (1990-10-26) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 71 (Tanabe et al. 2007) **Other strain no.:** TAC 359 **References:** 1056, 1059, 1060 **Remarks:** Cryopreserved
- 1218 History:** < TAC **Locality:** Kunma Dam/Okinawa/Japan (1990-10-26) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 71 (Tanabe et al. 2007) **Other strain no.:** TAC 360 **References:** 1056, 1059, 1060 **Remarks:** Cryopreserved
- 1219 History:** < TAC **Locality:** Kunma Dam/Okinawa/Japan (1990-10-26) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 72 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324921); glnA (AB325000); gltX (AB325079); gyrB (AB325158); pgi (AB325237); recA (AB325316); tpi (AB325395) **Other strain no.:** TAC 361 **References:** 1056, 1059, 1060, 1140 **Remarks:** Toxic; Cryopreserved
- 1220 History:** < TAC **Locality:** Kunma Dam/Okinawa/Japan (1990-10-26) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 72 (Tanabe et al. 2007) **Other strain no.:** TAC 362 **References:** 1056, 1059, 1060 **Remarks:** Toxic; Cryopreserved
- 1221 History:** < TAC **Locality:** Kunma Dam/Okinawa/Japan (1990-10-26) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 72 (Tanabe et al. 2007) **Other strain no.:** TAC 363 **References:** 1056, 1059, 1060 **Remarks:** Toxic; Cryopreserved
- 1222 History:** < TAC **Locality:** Tatsugami Dam/Okinawa/Japan (1990-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 33 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324882); glnA (AB324961); gltX (AB325040); gyrB (AB325119); pgi (AB325198); recA (AB325277); tpi (AB325356) **Other strain no.:** TAC 364 **References:** 1056, 1059, 1060, 1140 **Remarks:** Toxic; Cryopreserved
- 1223 History:** < TAC **Locality:** Tatsugami Dam/Okinawa/Japan (1990-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 33 (Tanabe et al. 2007) **Other**

- strain no.:** TAC 365 **References:** 1056, 1059, 1060 **Remarks:** Toxic; Cryopreserved
- 1224 History:** < TAC **Locality:** Tatsugami Dam/Okinawa/Japan (1990-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 71 (Tanabe et al. 2007) **Other strain no.:** TAC 368 **References:** 1056, 1059, 1060 **Remarks:** Cryopreserved
- 1225 History:** < TAC **Locality:** Tatsugami Dam/Okinawa/Japan (1990-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 72 (Tanabe et al. 2007) **Other strain no.:** TAC 369 **References:** 1056, 1059, 1060, 1140 **Remarks:** Toxic; Cryopreserved
- 1226 History:** < TAC **Locality:** Tatsugami Dam/Okinawa/Japan (1990-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 72 (Tanabe et al. 2007) **Other strain no.:** TAC 370 **References:** 1056, 1059, 1060 **Remarks:** Toxic; Cryopreserved
- 1227 History:** < TAC **Locality:** Fukuchi Dam/Okinawa/Japan (1990-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 72 (Tanabe et al. 2007) **Other strain no.:** TAC 371 **References:** 1056, 1059, 1060 **Remarks:** Toxic; Cryopreserved
- 1228 History:** < TAC **Locality:** Fukuchi Dam/Okinawa/Japan (1990-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 72 (Tanabe et al. 2007) **Other strain no.:** TAC 372 **References:** 1056, 1059, 1060 **Remarks:** Toxic; Cryopreserved
- 1229 History:** < TAC **Locality:** Fukuchi Dam/Okinawa/Japan (1990-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 24 °C ; 20-30µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 72 (Tanabe et al. 2007) **Other strain no.:** TAC 373 **References:** 1056, 1059, 1060 **Remarks:** Toxic
- 1230 History:** < TAC **Locality:** Ishigaki Dam/Okinawa/Japan (1990-10-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 78 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324927); glnA (AB325006); gltX (AB325085); gyrB (AB325164); pgi (AB325243); recA (AB325322); tpi (AB325401) **Other strain no.:** TAC 374 **References:** 1056, 1059, 1060, 1140 **Remarks:** Toxic; Cryopreserved
- 1231 History:** < TAC **Locality:** Ishigaki Dam/Okinawa/Japan (1990-10-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 78 (Tanabe et al. 2007) **Other strain no.:** TAC 375 **References:** 1056, 1059, 1060 **Remarks:** Toxic; Cryopreserved
- 1232 History:** < TAC **Locality:** Ishigaki Dam/Okinawa/Japan (1990-10-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 71 (Tanabe et al. 2007) **Other strain no.:** TAC 376 **References:** 1056, 1059, 1060, 1140 **Remarks:** Cryopreserved
- 1233 History:** < TAC **Locality:** Ishigaki Dam/Okinawa/Japan (1990-10-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 71 (Tanabe et al. 2007) **Other strain**

- no.: TAC 377 **References:** 1056, 1059, 1060 **Remarks:** Cryopreserved
- 1234 **History:** < TAC **Locality:** Ishigaki Dam/Okinawa/Japan (1990-10-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 24 °C ; 20-30 μ mol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 72 (Tanabe et al. 2007) **Other strain no.:** TAC 378 **References:** 1056, 1059, 1060, 1140 **Remarks:** Toxic
- 1235 **History:** < TAC **Locality:** Ishigaki Dam/Okinawa/Japan (1990-10-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 72 (Tanabe et al. 2007) **Other strain no.:** TAC 379 **References:** 1056, 1059, 1060 **Remarks:** Toxic; Cryopreserved
- 1236 **History:** < TAC **Locality:** Ishigaki Dam/Okinawa/Japan (1990-10-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 72 (Tanabe et al. 2007) **Other strain no.:** TAC 380 **References:** 1056, 1059, 1060 **Remarks:** Toxic; Cryopreserved
- 1237 **History:** < TAC **Locality:** Tengan Dam/Okinawa/Japan (1990-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 68 (Tanabe et al. 2007) **Other strain no.:** TAC 381 **References:** 1056, 1059, 1060 **Remarks:** Toxic; Cryopreserved
- 1238 **History:** < TAC **Locality:** Tengan Dam/Okinawa/Japan (1990-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 33 (Tanabe et al. 2007) **Other strain no.:** TAC 382 **References:** 1056, 1059, 1060 **Remarks:** Toxic; Cryopreserved
- 1239 **History:** < TAC **Locality:** Tengan Dam/Okinawa/Japan (1990-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 79 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324928); glnA (AB325007); gltX (AB325086); gyrB (AB325165); pgi (AB325244); recA (AB325323); tpi (AB325402) **Other strain no.:** TAC 383 **References:** 1056, 1059, 1060, 1140 **Remarks:** Cryopreserved
- 1240 **History:** < TAC **Locality:** Tengan Dam/Okinawa/Japan (1990-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 79 (Tanabe et al. 2007) **Other strain no.:** TAC 384 **References:** 1056, 1059, 1060 **Remarks:** Cryopreserved
- 1241 **History:** < TAC **Locality:** Tengan Dam/Okinawa/Japan (1990-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 72 (Tanabe et al. 2007) **Other strain no.:** TAC 385 **References:** 1056, 1059, 1060, 1140 **Remarks:** Toxic; Cryopreserved
- 1242 **History:** < TAC **Locality:** Tengan Dam/Okinawa/Japan (1990-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); Toxic; ST 72 (Tanabe et al. 2007) **Other strain no.:** TAC 386 **References:** 1056, 1059, 1060 **Remarks:** Toxic; Cryopreserved
- 1243 **History:** < TAC **Locality:** Maesato Dam/Okinawa/Japan (1990-10-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 79 (Tanabe et al. 2007) **Other strain**

- no.: TAC 387 References:** 1056, 1059, 1060, 1140 **Remarks:** Cryopreserved
- 1244 History:** < TAC **Locality:** Maesato Dam/Okinawa/Japan (1990-10-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 79 (Tanabe et al. 2007) **Other strain no.: TAC 388 References:** 1056, 1059, 1060 **Remarks:** Cryopreserved
- 1245 History:** < TAC **Locality:** Maesato Dam/Okinawa/Japan (1990-10-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 79 (Tanabe et al. 2007) **Other strain no.: TAC 389 References:** 1056, 1059, 1060 **Remarks:** Cryopreserved
- 1246 History:** < TAC **Locality:** Hyotan-ike Pond/Okinawa/Japan (1990-10-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.: TAC 390 Reference:** 1140 **Remarks:** Cryopreserved
- 1247 History:** < TAC **Locality:** Hyotan-ike Pond/Okinawa/Japan (1990-10-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 24°C; 20-30µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.: TAC 391**
- 1248 History:** < TAC **Locality:** Hyotan-ike Pond/Okinawa/Japan (1990-10-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.: TAC 392 Remarks:** Cryopreserved
- 1249 History:** < TAC **Locality:** Hyotan-ike Pond/Okinawa/Japan (1990-10-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.: TAC 393 Remarks:** Cryopreserved
- 1250 History:** < TAC **Locality:** Hyotan-ike Pond/Okinawa/Japan (1990-10-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.: TAC 394 Remarks:** Cryopreserved
- 1251 History:** < TAC **Locality:** Lake Suwa/Nagano/Japan (1990-03-31) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 17 (Tanabe et al. 2007) **Other strain no.: TAC 395 References:** 1056, 1059, 1060 **Remarks:** Cryopreserved
- 1252 History:** < TAC **Locality:** Lake Suwa/Nagano/Japan (1990-03-31) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 53 (Tanabe et al. 2007) **Gene data:** ftsZ (AB324902); glnA (AB324981); gltX (AB325060); gyrB (AB325139); pgi (AB325218); recA (AB325297); tpi (AB325376) **Other strain no.: TAC 396 References:** 1056, 1059, 1060 **Remarks:** Cryopreserved
- 1253 History:** < TAC **Locality:** Lake Suwa/Nagano/Japan (1990-03-31) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 8 (Tanabe et al. 2007) **Other strain no.: TAC 401 References:** 1056, 1059, 1060 **Remarks:** Cryopreserved
- 1254 History:** < TAC **Locality:** Lake Suwa/Nagano/Japan (1990-03-31) **Isolator:** Watanabe, Masayuki

- Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek
States: Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M
Habitat: Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 8 (Tanabe et al. 2007) **Other strain no.:** TAC 402 **References:** 1056, 1059, 1060 **Remarks:** Cryopreserved
- 1255 History:** < TAC **Locality:** Lake Tsukui/Kanagawa/Japan (1990-08-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 405 **Remarks:** Cryopreserved
- 1256 History:** < TAC **Locality:** Lake Tsukui/Kanagawa/Japan (1990-08-28) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **Formerly identified as:** *Microcystis wesenbergii* Komárek **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 406 **Remarks:** Cryopreserved
- 1257 History:** < TAC **Locality:** Nakagusuku/Okinawa/Japan (1990-12-11) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 24°C; 20-30µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 407
- 1354 History:** < TAC **Locality:** Chikatou-ike Pond/Nagano/Japan (1982-09-13) **Formerly identified as:** *Microcystis viridis* (A.Brown) Lemmermann **States:** Unialgal; Clonal; Axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 64-1 **Remarks:** Cryopreserved
- 1355 History:** < TAC **Locality:** Lake Mikata/Fukui/Japan (1984-09-09) **Formerly identified as:** *Microcystis viridis* (A.Brown) Lemmermann **States:** Unialgal; Clonal; Axenic **Culture conditions:** MA; 18 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 78-1 **Reference:** 1230 **Remarks:** Cryopreserved
- 1356 History:** < TAC **Locality:** Lake Teganuma/Chiba/Japan (1989-09-13) **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** MA; 18°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 158-1 **Remarks:** Cryopreserved
- 2088 History:** < Tanabe, Yuhiko **Locality:** Lake Inbanuma/Chiba/Japan (2007-07-04) **Isolator:** Tanabe, Yuhiko **Identified by:** Tanabe, Yuhiko (2007-08-19) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 23°C; 20-30µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 197 (Tanabe et al. 2011) **Gene data:** ftsZ (AB547721); glnA (AB547743); pgi (AB547841) **Other strain no.:** Is07Yo01 **Reference:** 1060 **Remarks:** Cryopreserved
- 2089 History:** < Tanabe, Yuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2007-08-03) **Isolator:** Tanabe, Yuhiko **Identified by:** Tanabe, Yuhiko (2007-08-06) **States:** Unialgal; Clonal; Axenic **Culture conditions:** MA; 23 °C ; 20-30µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 122 (Tanabe et al. 2011) **Other strain no.:** Ks07TS11 **Reference:** 1060 **Remarks:** Cryopreserved
- 2090 History:** < Tanabe, Yuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2007-08-03) **Isolator:** Tanabe, Yuhiko **Identified by:** Tanabe, Yuhiko (2007-08-07) **States:** Unialgal; Clonal; Axenic **Culture conditions:** MA; 23 °C ; 20-30µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 171 (Tanabe et al. 2011) **Other strain no.:** Ks07TS29 **Reference:** 1060 **Remarks:** Cryopreserved
- 2091 History:** < Tanabe, Yuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2007-08-09) **Isolator:** Tanabe, Yuhiko **Identified by:** Tanabe, Yuhiko (2007-08-18) **States:** Unialgal; Clonal; Axenic **Culture conditions:** MA; 23 °C ; 20-30µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); ST 173 (Tanabe et al. 2011) **Gene data:**

- glnA (AB547735) **Other strain no.:** Ks07TS48 **Reference:** 1060 **Remarks:** Cryopreserved
- 2465 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2004-09-01) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator, Toxic; ST 80 (Tanabe et al. 2009b) **Gene data:** ftsZ (AB465739); glnA (AB465740); gltX (AB465741); gyrB (AB465742); mcyD (AB444755); mcyG (AB444796); mcyJ (AB444837); pgi (AB465743); recA (AB465744); tpi (AB465745) **Other strain no.:** KA-3b **References:** 1054, 1059, 1060 **Remarks:** Cryopreserved
- 2466 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2004-09-09) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator, Toxic; ST 82 (Tanabe et al. 2009b) **Gene data:** ftsZ (AB465753); glnA (AB465754); gltX (AB465755); gyrB (AB465756); mcyD (AB444757); mcyG (AB444798); mcyJ (AB444839); pgi (AB465757); recA (AB465758); tpi (AB465759) **Other strain no.:** KA-6 **References:** 1054, 1059, 1060 **Remarks:** Cryopreserved
- 2467 History:** < Tanabe, Yuuhiko **Locality:** Lake Suwa/Nagano/Japan (2004-10-07) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator, Toxic; ST 84 (Tanabe et al. 2009b) **Gene data:** ftsZ (AB465767); glnA (AB465768); gltX (AB465769); gyrB (AB465770); mcyD (AB444759); mcyG (AB444800); mcyJ (AB444841); pgi (AB465771); recA (AB465772); tpi (AB465773) **Other strain no.:** SA-2 **References:** 1054, 1059, 1060 **Remarks:** Cryopreserved
- 2468 History:** < Tanabe, Yuuhiko **Locality:** Lake Suwa/Nagano/Japan (2004-10-07) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator, Toxic; ST 85 (unpubl.) **Gene data:** ftsZ (AB444841); glnA (AB444841); gltX (AB444841); gyrB (AB444841); pgi (AB444841); recA (AB444841); tpi (AB444841) **Other strain no.:** Sw-4 **References:** 1054, 1060 **Remarks:** Cryopreserved
- 2469 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-07-17) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator, Toxic; ST 90 (Tanabe et al. 2009b) **Gene data:** ftsZ (AB465809); glnA (AB465810); gltX (AB465811); gyrB (AB465812); mcyD (AB444762); mcyG (AB444803); mcyJ (AB444844); pgi (AB465813); recA (AB465814); tpi (AB465815) **Other strain no.:** Ks05IS02 **References:** 1054, 1057, 1059, 1060 **Remarks:** Cryopreserved
- 2470 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-07-17) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator, Toxic; ST 91 (Tanabe et al. 2009b) **Gene data:** ftsZ (AB465816); glnA (AB465817); gltX (AB465818); gyrB (AB465819); pgi (AB465820); recA (AB465821); tpi (AB465822) **Other strain no.:** Ks05IS11 **References:** 1054, 1057, 1059, 1060 **Remarks:** Cryopreserved
- 2471 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-07-17) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator, Toxic; ST 102 (Tanabe et al. 2009b) **Gene data:** ftsZ (AB465893); glnA (AB465894); gltX (AB465895); gyrB (AB465896); pgi (AB465897); recA (AB465898); tpi (AB465899) **Other strain no.:** Ks05IS19 **References:** 1054, 1057, 1059, 1060 **Remarks:** Cryopreserved
- 2472 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-07-17) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator, Toxic; ST 86 (Tanabe et al. 2009b) **Gene data:** ftsZ (AB465781);

- glnA (AB465782); gltX (AB465783); gyrB (AB465784); pgi (AB465785); recA (AB465786); tpi (AB465787) **Other strain no.:** Ks05TA51 **References:** 1054, 1057, 1059, 1060 **Remarks:** Cryopreserved
- 2473 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-09-03) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator, Toxic; ST 89 (Tanabe et al. 2009b) **Gene data:** ftsZ (AB465802); glnA (AB465803); gltX (AB465804); gyrB (AB465805); pgi (AB465806); recA (AB465807); tpi (AB465808) **Other strain no.:** Ki05TA07 **References:** 1054, 1057, 1059, 1060 **Remarks:** Cryopreserved
- 2474 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-09-03) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator, Toxic; ST 87 (Tanabe et al. 2009b) **Gene data:** ftsZ (AB465788); glnA (AB465789); gltX (AB465790); gyrB (AB465791); mcyD (AB444760); mcyG (AB444801); mcyJ (AB444842); pgi (AB465792); recA (AB465793); tpi (AB465794) **Other strain no.:** Ks05TA62 **References:** 1054, 1057, 1059, 1060 **Remarks:** Cryopreserved
- 2475 History:** < Tanabe, Yuuhiko **Locality:** Lake Teganuma/Chiba/Japan (2005-09-10) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator, Toxic; ST 94 (Tanabe et al. 2009b) **Gene data:** ftsZ (AB465837); glnA (AB465838); gltX (AB465839); gyrB (AB465840); pgi (AB465841); recA (AB465842); tpi (AB465843) **Other strain no.:** Tn05AK02 **References:** 1054, 1057, 1059, 1060 **Remarks:** Cryopreserved
- 2476 History:** < Tanabe, Yuuhiko **Locality:** Lake Teganuma/Chiba/Japan (2005-09-10) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator, Toxic; ST 96 (Tanabe et al. 2009b) **Gene data:** ftsZ (AB465851); glnA (AB465852); gltX (AB465853); gyrB (AB465854); pgi (AB465855); recA (AB465856); tpi (AB465857) **Other strain no.:** Tn05AK05 **References:** 1054, 1057, 1059, 1060 **Remarks:** Cryopreserved
- 2477 History:** < Tanabe, Yuuhiko **Locality:** Lake Inbanuma/Chiba/Japan (2005-09-19) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Water) **Characteristics:** Water bloom (aoko); Indicator, Toxic; ST 98 (Tanabe et al. 2009b) **Gene data:** ftsZ (AB465865); glnA (AB465866); gltX (AB465867); gyrB (AB465868); mcyD (AB444767); mcyG (AB444808); mcyJ (AB444849); pgi (AB465869); recA (AB465870); tpi (AB465871) **Other strain no.:** Ia05Yo03 **References:** 1054, 1057, 1059, 1060 **Remarks:** Cryopreserved
- 2478 History:** < Tanabe, Yuuhiko **Locality:** Lake Suwa/Nagano/Japan (2005-09-28) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator, Toxic; ST 100 (Tanabe et al. 2009b) **Gene data:** ftsZ (AB465879); glnA (AB465880); gltX (AB465881); gyrB (AB465882); mcyD (AB444769); mcyG (AB444810); mcyJ (AB444851); pgi (AB465883); recA (AB465884); tpi (AB465885) **Other strain no.:** Sn05Mb05 **References:** 1054, 1057, 1059, 1060 **Remarks:** Cryopreserved
- 2479 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2004-09-01) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator, Toxic; ST 81 (Tanabe et al. 2009b) **Gene data:** ftsZ (AB465746); glnA (AB465747); gltX (AB465748); gyrB (AB465749); mcyD (AB444756); mcyG (AB444797); mcyJ (AB444838); pgi (AB465750); recA (AB465751); tpi (AB465752) **Other strain no.:** KA-4 **References:** 1054, 1057, 1059, 1060
- 2480 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Nagano/Japan (2005-07-17) **Isolator:**

- Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 109 (Tanabe et al. 2009a) **Gene data:** glnA (AB511578); gltX (AB511610); gyrB (AB511634); pgi (AB511657); recA (AB511676); tpi (AB511693) **Other strain no.:** Ks05TA1 **References:** 1054, 1057, 1060
- 2481 **History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-07-17) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 110 (Tanabe et al. 2009a) **Gene data:** glnA (AB511579); gltX (AB511611); gyrB (AB511635); recA (AB511677); tpi (AB511694) **Other strain no.:** Ks05TA2 **References:** 1054, 1057, 1060
- 2482 **History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-07-17) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 111 (Tanabe et al. 2009a) **Gene data:** glnA (AB511580); gyrB (AB511636); pgi (AB511658) **Other strain no.:** Ks05TA3 **References:** 1054, 1057, 1060
- 2483 **History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-07-17) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 112 (Tanabe et al. 2009a) **Gene data:** gltX (AB511612) **Other strain no.:** Ks05TA4 **References:** 1054, 1057, 1060
- 2484 **History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-07-17) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 113 (Tanabe et al. 2009a) **Gene data:** glnA (AB511581); gyrB (AB511637) **Other strain no.:** Ks05TA5 **References:** 1054, 1057, 1060
- 2485 **History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-07-17) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 114 (Tanabe et al. 2009a) **Gene data:** glnA (AB511582); gyrB (AB511638); recA (AB511678) **Other strain no.:** Ks05TA6 **References:** 1054, 1057, 1060
- 2486 **History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-07-17) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 116 (Tanabe et al. 2009a) **Gene data:** pgi (AB511660) **Other strain no.:** Ks05TA21 **References:** 1054, 1057, 1060
- 2487 **History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-07-17) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 118 (Tanabe et al. 2009a) **Gene data:** glnA (AB511584); gltX (AB511613); pgi (AB511661) **Other strain no.:** Ks05TA23 **References:** 1054, 1057, 1060
- 2488 **History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-07-17) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 123 (Tanabe et al. 2009a) **Gene data:** glnA (AB511588); gyrB (AB511640) **Other strain no.:** Ks05TA32 **References:** 1054, 1057, 1060
- 2489 **History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-07-17) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 125 (Tanabe et al. 2009a) **Gene data:** glnA (AB511590); gyrB (AB511641) **Other strain no.:** Ks05TA35 **References:** 1054, 1057, 1060
- 2490 **History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-07-17) **Isolator:**

- Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 126 (Tanabe et al. 2009a) **Gene data:** glnA (AB511591); gltX (AB511614); gyrB (AB511642) **Other strain no.:** Ks05TA37 **References:** 1054, 1057, 1060
- 2491 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-07-17) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 129 (Tanabe et al. 2009a) **Gene data:** glnA (AB511594); gltX (AB511615); gyrB (AB511643) **Other strain no.:** Ks05TA52 **References:** 1054, 1057, 1060
- 2492 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-07-17) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 130 (Tanabe et al. 2009a) **Gene data:** ftsZ (AB511569); glnA (AB511595); gltX (AB511616); gyrB (AB511644); pgi (AB511662); tpi (AB511695) **Other strain no.:** Ks05TA56 **References:** 1054, 1057, 1060
- 2493 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-09-03) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; Probably non-toxic; ST 135 (Tanabe et al. 2009a) **Gene data:** glnA (AB511597); gltX (AB511618); gyrB (AB511648); recA (AB511681); tpi (AB511696) **Other strain no.:** Ki05TA10 **References:** 1054, 1057, 1060
- 2494 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-09-03) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 136 (Tanabe et al. 2009a) **Gene data:** gltX (AB511619); recA (AB511682) **Other strain no.:** Ki05TA11 **References:** 1054, 1057, 1060
- 2495 History:** < Tanabe, Yuuhiko **Locality:** Lake Kitaura/Ibaraki/Japan (2005-08-14) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 149 (Tanabe et al. 2009a) **Gene data:** ftsZ (AB511574); glnA (AB511603); gltX (AB511626); gyrB (AB511652); pgi (AB511670); recA (AB511688); tpi (AB511700) **Other strain no.:** Kw05YA03 **References:** 1054, 1057, 1060
- 2496 History:** < Tanabe, Yuuhiko **Locality:** Lake Kitaura/Ibaraki/Japan (2005-08-14) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 150 (Tanabe et al. 2009a) **Gene data:** glnA (AB511604); gltX (AB511627) **Other strain no.:** Kw05YA04 **References:** 1054, 1057, 1060
- 2546 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-07-17) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator, Toxic; ST 137 (Tanabe et al. 2009a) **Gene data:** glnA (AB511598) **Other strain no.:** Ks05IS01 **References:** 1054, 1057, 1060
- 2547 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-07-17) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 138 (Tanabe et al. 2009a) **Gene data:** pgi (AB511664) **Other strain no.:** Ks05IS04 **References:** 1054, 1057, 1060
- 2548 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-07-17) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; Probably non-toxic; ST 142 (Tanabe et al. 2009a) **Other strain no.:** Ks05IS14 **References:** 1054, 1057, 1060

- 2549 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-07-17) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 120 (Tanabe et al. 2009a) **Other strain no.:** Ks05TA38 **References:** 1054, 1057, 1060
- 2550 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-09-03) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 134 (Tanabe et al. 2009a) **Gene data:** gltX (AB511617); gyrB (AB511647); recA (AB511680) **Other strain no.:** Ki05TA05 **References:** 1054, 1057, 1060
- 2551 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-09-03) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 131 (Tanabe et al. 2009a) **Gene data:** glnA (AB511596); gyrB (AB511645); pgi (AB511663) **Other strain no.:** Kw05TA03 **References:** 1054, 1057, 1060
- 2552 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-09-03) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 132 (Tanabe et al. 2009a) **Other strain no.:** Kw05TA04 **References:** 1054, 1057, 1060
- 2553 History:** < Tanabe, Yuuhiko **Locality:** Lake Kitaura/Ibaraki/Japan (2005-08-14) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 144 (Tanabe et al. 2009a) **Gene data:** recA (AB511685) **Other strain no.:** Ks05YA03 **References:** 1054, 1057, 1060
- 2554 History:** < Tanabe, Yuuhiko **Locality:** Lake Teganuma/Chiba/Japan (2005-09-10) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 151 (Tanabe et al. 2009a) **Gene data:** ftsZ (AB511575); glnA (AB511605); gltX (AB511628); pgi (AB511671); recA (AB511689); tpi (AB511701) **Other strain no.:** Tw05AK01 **References:** 1054, 1057, 1060
- 2555 History:** < Tanabe, Yuuhiko **Locality:** Lake Teganuma/Chiba/Japan (2005-09-10) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 152 (Tanabe et al. 2009a) **Gene data:** glnA (AB511606) **Other strain no.:** Tw05AK02 **References:** 1054, 1057, 1060
- 2556 History:** < Tanabe, Yuuhiko **Locality:** Lake Teganuma/Chiba/Japan (2005-09-10) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; Probably non-toxic; ST 153 (Tanabe et al. 2009a) **Gene data:** ftsZ (AB511576); glnA (AB511607); gltX (AB511629); pgi (AB511672); recA (AB511690) **Other strain no.:** Tw05AK10 **References:** 1054, 1057, 1060
- 2557 History:** < Tanabe, Yuuhiko **Locality:** Lake Teganuma/Chiba/Japan (2005-09-10) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 154 (Tanabe et al. 2009a) **Gene data:** glnA (AB511608); pgi (AB511673) **Other strain no.:** Tw05AK11 **References:** 1054, 1057, 1060
- 2558 History:** < Tanabe, Yuuhiko **Locality:** Lake Inbanuma/Chiba/Japan (2005-09-19) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Water) **Characteristics:** Water bloom (aoko); Indicator; ST 156 (Tanabe et al. 2009a) **Gene data:** gyrB (AB511653) **Other strain no.:** Iw05FU01 **References:** 1054, 1057, 1060

- 2559 History:** < Tanabe, Yuuhiko **Locality:** Lake Inbanuma/Chiba/Japan (2005-09-19) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Water) **Characteristics:** Water bloom (aoko); Indicator; ST 157 (Tanabe et al. 2009a) **Other strain no.:** Iw05FU08 **References:** 1054, 1057, 1060
- 2560 History:** < Tanabe, Yuuhiko **Locality:** Lake Inbanuma/Chiba/Japan (2005-09-19) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 159 (Tanabe et al. 2009a) **Gene data:** gltX (AB511632); gyrB (AB511655); recA (AB511692) **Other strain no.:** Ii05Yo01 **References:** 1054, 1057, 1060
- 2561 History:** < Tanabe, Yuuhiko **Locality:** Lake Inbanuma/Chiba/Japan (2005-09-19) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Water) **Characteristics:** Water bloom (aoko); Indicator, Toxic; ST 97 (Tanabe et al. 2009b) **Other strain no.:** In05Yo05 **References:** 1054, 1057, 1059, 1060
- 2591 History:** < Tanabe, Yuuhiko **Locality:** Lake Suwa/Nagano/Japan (2004-10-07) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 67 (Tanabe et al. 2011) **Other strain no.:** Sw-7 **References:** 1054, 1060
- 2592 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-07-17) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 121 (Tanabe et al. 2009a) **Gene data:** glnA (AB511586); gyrB (AB511639) **Other strain no.:** Ks05TA28 **References:** 1054, 1057, 1060
- 2593 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-07-17) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 117 (Tanabe et al. 2009a) **Other strain no.:** Ks05TA53 **References:** 1054, 1057, 1060
- 2594 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-09-03) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; Probably non-toxic; ST 133 (Tanabe et al. 2009a) **Gene data:** gyrB (AB511646); recA (AB511679) **Other strain no.:** Ki05TA03 **References:** 1054, 1057, 1060
- 2595 History:** < Tanabe, Yuuhiko **Locality:** Lake Suwa/Nagano/Japan (2005-09-28) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; Probably toxic; ST 163 (Tanabe et al. 2011) **Gene data:** recA (AB547856) **Other strain no.:** Sn05Mb06 **References:** 1054, 1060
- 2596 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2007-08-03) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 169 (Tanabe et al. 2011) **Gene data:** glnA (AB547734); gyrB (AB547802); pgi (AB547829) **Other strain no.:** Ks07TS20 **References:** 1054, 1060
- 2597 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2007-08-03) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 170 (Tanabe et al. 2011) **Gene data:** pgi (AB547830) **Other strain no.:** Ks07TS27 **References:** 1054, 1060
- 2598 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2007-09-03) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture**

- conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator, Toxic; ST 185 (Tanabe et al. 2011) **Gene data:** gyrB (AB547809); pgi (AB547835) **Other strain no.:** Kn07TS91 **References:** 1054, 1060
- 2599 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2007-09-16) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 179 (Tanabe et al. 2011) **Other strain no.:** Ks07TS123 **References:** 1054, 1060
- 2600 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2007-09-22) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 181 (Tanabe et al. 2011) **Gene data:** pgi (AB547831); recA (AB547863) **Other strain no.:** Ks07TS137 **References:** 1054, 1060
- 2601 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2007-10-14) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; Probably non-toxic; ST 184 (Tanabe et al. 2011) **Gene data:** ftsZ (AB547719); gltX (AB547775); gyrB (AB547808); pgi (AB547834); recA (AB547866); tpi (AB547886) **Other strain no.:** Ks07TS159 **References:** 1054, 1060
- 2602 History:** < Tanabe, Yuuhiko **Locality:** Lake Inbanuma/Chiba/Japan (2007-07-04) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; Probably non-toxic; ST 195 (Tanabe et al. 2011) **Gene data:** glnA (AB547741); gltX (AB547779); pgi (AB547840) **Other strain no.:** li07Yo01 **References:** 1054, 1060
- 2603 History:** < Tanabe, Yuuhiko **Locality:** Lake Suwa/Nagano/Japan (2007-09-25) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; Probably non-toxic; ST 199 (Tanabe et al. 2011) **Gene data:** glnA (AB547745); gltX (AB547781); pgi (AB547843) **Other strain no.:** Sw07Hb06 **References:** 1054, 1060
- 2604 History:** < Tanabe, Yuuhiko **Locality:** Lake Biwa/Shiga/Japan (2007-11-12) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator, Toxic; ST 203 (Tanabe et al. 2011) **Gene data:** recA (AB547871) **Other strain no.:** Bv07BH03 **References:** 1054, 1060
- 2605 History:** < Tanabe, Yuuhiko **Locality:** Ishigaki Isl., Nagura Dam/Okinawa/Japan (2008-02-20) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20 °C ; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Water) **Characteristics:** Water bloom (aoko); Indicator, Toxic; ST 206 (Tanabe et al. 2011) **Other strain no.:** Rs08NA05 **References:** 1054, 1060
- 2606 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2008-08-02) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; Probably non-toxic; ST 216 (Tanabe et al. 2011) **Gene data:** glnA (AB547751); gltX (AB547792); tpi (AB547899) **Other strain no.:** Ks08TS05 **References:** 1054, 1060
- 2607 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2008-08-02) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; Probably non-toxic; ST 217 (Tanabe et al. 2011) **Gene data:** gyrB (AB547819) **Other strain no.:** Ks08TS06 **References:** 1054, 1060

- 2608 History:** < Tanabe, Yuuhiko **Locality:** Lake Kitaura/Ibaraki/Japan (2008-08-03) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; Probably non-toxic; ST 221 (Tanabe et al. 2011) **Gene data:** gltX (AB547794); pgi (AB547850) **Other strain no.:** Ks08YA15 **References:** 1054, 1060
- 2609 History:** < Tanabe, Yuuhiko **Locality:** Lake Kitaura/Ibaraki/Japan (2008-08-03) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; Probably non-toxic; ST 224 (Tanabe et al. 2011) **Gene data:** glnA (AB547752) **Other strain no.:** Ks08YA25 **References:** 1054, 1060
- 2610 History:** < Tanabe, Yuuhiko **Locality:** Hachirogata/Akita/Japan (2008-08-22) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; Probably toxic; ST 230 (Tanabe et al. 2011) **Gene data:** glnA (AB547757); pgi (AB547853); recA (AB547878) **Other strain no.:** An08Hj03 **References:** 1054, 1060
- 2611 History:** < Tanabe, Yuuhiko **Locality:** Hachirogata/Akita/Japan (2008-08-22) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; Probably toxic; ST 234 (Tanabe et al. 2011) **Gene data:** recA (AB547879) **Other strain no.:** As08Fu06 **References:** 1054, 1060
- 2612 History:** < Tanabe, Yuuhiko **Locality:** Hachirogata/Akita/Japan (2008-08-22) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; Probably non-toxic; ST 228 (Tanabe et al. 2011) **Gene data:** glnA (AB547755); pgi (AB547851); tpi (AB547902) **Other strain no.:** As08Gb10 **References:** 1054, 1060
- 2613 History:** < Tanabe, Yuuhiko **Locality:** Hachirogata/Akita/Japan (2008-08-22) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; Probably non-toxic; ST 235 (Tanabe et al. 2011) **Other strain no.:** Aw08Fu02 **References:** 1054, 1060
- 2617 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-07-17) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator, Toxic; ST 141 (Tanabe et al. 2011) **Gene data:** gltX (AB511622) **Other strain no.:** Ks05IS12 **References:** 1054, 1057, 1060
- 2618 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2005-07-17) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; Probably non-toxic; ST 143 (Tanabe et al. 2011) **Other strain no.:** Ks05IS17 **References:** 1054, 1057, 1060
- 2619 History:** < Tanabe, Yuuhiko **Locality:** Lake Suwa/Nagano/Japan (2005-09-29) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; Probably non-toxic; ST 162 (Tanabe et al. 2011) **Gene data:** gltX (AB547764) **Other strain no.:** Sn05Hb06 **References:** 1054, 1060
- 2620 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2007-08-03) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 127 (Tanabe et al. 2011) **Other strain no.:** Ks07TS13 **References:** 1054, 1060

- 2621 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2007-09-09) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; Probably non-toxic; ST 187 (Tanabe et al. 2011) **Gene data:** gyrB (AB547811); pgi (AB547837); tpi (AB547888) **Other strain no.:** Kw07TS101 **References:** 1054, 1060
- 2622 History:** < Tanabe, Yuuhiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (2007-09-16) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; ST 180 (Tanabe et al. 2011) **Gene data:** gltX (AB547772) **Other strain no.:** Ks07TS127 **References:** 1054, 1060
- 2623 History:** < Tanabe, Yuuhiko **Locality:** Hyotan-ike Pond/Shizuoka/Japan (2007-10-22) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; Probably non-toxic; ST 201 (Tanabe et al. 2011) **Gene data:** tpi (AB547892) **Other strain no.:** Hw07SP01 **References:** 1054, 1060
- 2624 History:** < Tanabe, Yuuhiko **Locality:** Lake Biwa/Shiga/Japan (2007-11-12) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; Probably non-toxic; ST 103 (Tanabe et al. 2011) **Other strain no.:** Bi07BH01 **References:** 1054, 1060
- 2625 History:** < Tanabe, Yuuhiko **Locality:** Yamashita-ike Pond/Kagawa/Japan (2008-07-02) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; Probably non-toxic; ST 209 (Tanabe et al. 2011) **Gene data:** glnA (AB547747); gyrB (AB547816) **Other strain no.:** SKw08Ya04 **References:** 1054, 1060
- 2626 History:** < Tanabe, Yuuhiko **Locality:** Lake Kitaura/Ibaraki/Japan (2008-08-03) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; Probably non-toxic; ST 219 (Tanabe et al. 2011) **Gene data:** gltX (AB547793); recA (AB547876) **Other strain no.:** Ks08YA11 **References:** 1054, 1060
- 2627 History:** < Tanabe, Yuuhiko **Locality:** Hachirogata/Akita/Japan (2008-08-22) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; Probably non-toxic; ST 233 (Tanabe et al. 2011) **Gene data:** ftsZ (AB547726); glnA (AB547760); gltX (AB547797); gyrB (AB547822); pgi (AB547854) **Other strain no.:** Ai08Fu01 **References:** 1054, 1060
- 2628 History:** < Tanabe, Yuuhiko **Locality:** Hachirogata/Akita/Japan (2008-08-22) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; Probably non-toxic; ST 227 (Tanabe et al. 2011) **Gene data:** glnA (AB547754) **Other strain no.:** As08Gb04 **References:** 1054, 1060
- 2629 History:** < Tanabe, Yuuhiko **Locality:** Hachirogata/Akita/Japan (2008-08-22) **Isolator:** Tanabe, Yuuhiko **Identified by:** Tanabe, Yuuhiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom (aoko); Indicator; Probably non-toxic; ST 231 (Tanabe et al. 2011) **Gene data:** glnA (AB547758); gltX (AB547796); gyrB (AB547821) **Other strain no.:** As08Hj03 **References:** 1054, 1060

MICROMONAS : Prasinophyceae

Micromonas pusilla (Butcher) Manton et Parke

- 1411 History:** < TKB **Locality:** Tokyo/Japan (2004-10-28) **Isolator:** Nakayama, Takeshi **Identified by:**

Nakayama, Takeshi **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 μ mol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-189 (nak78)

- 1412 **History:** < TKB **Locality:** Motobu, Sesoko/Okinawa/Japan (2004-11-08) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** MNK; 20°C; 20-30 μ mol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-214 (nak100)
- 1413 **History:** < TKB **Locality:** Tennozu Canal/Tokyo/Japan (2004-12-03) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30 μ mol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-215 (nak101)
- 2672 **History:** < RCC (2010) **Other collection strain no.:** RCC 299 **Locality:** Equatorial Pacific (1998-02-10) **Isolator:** Boulben, S. **Identified by:** Guillou, L. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 22-32 μ mol/m²/s; 14 D **Habitat:** Marine (Seawater) **Other strain no.:** NOUM17

MICROTHAMNION : Trebouxiophyceae

Microthamnion kützingianum Nägeli

- 479 **History:** < Kasai, Fumie **Locality:** Toyohira River/Hokkaido/Japan (1987-07-02) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie; Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 10°C; 6-12 μ mol/m²/s; 6 M (10°C; 10-15 μ mol/m²/s) **Habitat:** Freshwater (River water) **Gene data:** 18S rRNA (AB488588) **Other strain no.:** Tst11-6 **References:** 567, 1018, 1019 **Remarks:** Cryopreserved

MISCHOCOCCUS : Xanthophyceae

Mischococcus sp.

- 1963 **History:** < TKB **Locality:** Ryugasaki/Ibaraki/Japan (2006-01-13) **Isolator:** Chikuni, Tomoko **Identified by:** Chikuni, Tomoko (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 15-22 μ mol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TKB-325

MONOMASTIX : Prasinophyceae

Monomastix minuta Skuja

- 255 **History:** < Suda, Shoichiro **Locality:** Tsuchiura/Ibaraki/Japan (1983-07-22) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C; 20°C; 40-50 μ mol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Gene data:** 16S-ITS1-tRNA-Ile-tRNA-Ala-23S (FN563091); 18S-ITS1-5.8S-ITS2-28S (FN562446) **Other strain no.:** SIS-Mono **References:** 138, 360, 687
- 256 **History:** < Suda, Shoichiro **Locality:** Ozegahara/Gunma/Japan (1983-08-29) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** AF-6; 20°C; 40-50 μ mol/m²/s; 1 M **Habitat:** Freshwater (Bog water) **Other strain no.:** Oz-35-m

MONORAPHIDIUM : Chlorophyceae

Monoraphidium circinale (Nygaard) Nygaard

- 480 **History:** < Suda, Shoichiro **Locality:** Tsuchiura/Ibaraki/Japan (1983-07-22) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10 μ mol/m²/s; 3 M (25°C; 70-80 μ mol/m²/s) **Habitat:** Freshwater (Pond water) **Gene data:** rbcL (AB175933); rbcL (AB175934) **Other strain no.:** SIS-1-M **Reference:** 567

Monoraphidium contortum (Thuret) Komárková-Legnerová

- 384 **History:** < Sawaguchi, Tomohiro **Locality:** Lake Unagiike/Kagoshima/Japan (1985-02-20) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** Ep-i **Reference:** 567

Monoraphidium griffithii (Berkeley) Komárová-Legnerová

- 385 **History:** < Sawaguchi, Tomohiro **Locality:** Urizura/Ibaraki/Japan (1984-10-28) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Pond water) **Other strain no.:** AWA **Reference:** 567

Monoraphidium minutum (Nägeli) Komárová-Legnerová

Syn. *Selenastrum minutum* (Nägeli) Collins

- 2282 **History:** < IAM (2007) < Murano, Fumio **Other collection strain no.:** IAM C-139 **Isolator:** Murano, Fumio **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M

Monoraphidium sp.

- 2267 **History:** < IAM (2007) < Fujii, Katsuhiko **Other collection strain no.:** IAM C-632 **Locality:** Yamaguchi/Japan **Isolator:** Fujii, Katsuhiko **Identified by:** Fujii, Katsuhiko **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat:** (Activated sludge) **Characteristics:** Astaxantin production **Other strain no.:** GK 12

MURIELLA : Chlorophyceae

Muriella zofingiensis (Dönz) Hindák

Syn. *Chlorella zofingiensis* Dönz

- 2175 **History:** < IAM (2007) < BIU (UTEX; 1961) **Other collection strain no.:** IAM C-111; ATCC 30412; CCAP 211-14; SAG B211-14; UTEX 32; CAUP H6503 **Locality:** Ramooswald near Zofingen/Switzerland **Isolator:** Dönz, O. C. **Identified by:** Kessler, E.; Confirmed at NIES by DNA sequencing (1991) **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** C (agar); 20 °C ; 8-15µmol/m²/s; 3 M **Habitat:** (Soil) **Gene data:** 18S rRNA (AB488563) **References:** 385, 496, 498, 499

MYCHONASTES : Chlorophyceae

Mychonastes sp.

- 2334 **History:** < Takamura, Noriko **Locality:** Lake Kizaki/Nagano/Japan (1991-05-15) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko; Confirmed at NIES by DNA sequencing **States:** Unialgal **Culture conditions:** CB; 15°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** 18S rRNA (AB488564) **Other strain no.:** KIZ 11

- 2336 **History:** < Takamura, Noriko **Locality:** Lake Yamanaka/Yamanashi/Japan (1991-04-11) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko; Confirmed at NIES by DNA sequencing **States:** Unialgal **Culture conditions:** CB; 15°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** 18S rRNA (AB488565) **Other strain no.:** YA 4

- 2339 **History:** < Takamura, Noriko **Locality:** Lake Sagami/Kanagawa/Japan (1991-04-11) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko; Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Axenic[2012 Nov] **Culture conditions:** CB; 15°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** 18S rRNA (AB488566) **Other strain no.:** SA 2

- 2340 **History:** < Takamura, Noriko **Locality:** Lake Nakatsuna/Nagano/Japan (1991-05-15) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko; Confirmed at NIES by DNA sequencing **States:** Unialgal **Culture conditions:** CB; 15°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** 18S rRNA (AB488567) **Other strain no.:** NT 2

- 2341 **History:** < Takamura, Noriko **Locality:** Lake Tateshina/Nagano/Japan (1991-05-09) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko; Confirmed at NIES by DNA sequencing

States: Unialgal **Culture conditions:** CB; 15°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** 18S rRNA (AB488568) **Other strain no.:** TATE 1

MYRMECIA : Trebouxiophyceae

Myrmecia biatorellae (Tschermk-Woess et Plessl) Peterson

- 2181 History:** < IAM (2007) **Other collection strain no.:** IAM C-356 **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M

MYXOSARCINA : Cyanophyceae

Myxosarcina burmensis Skuja

- 481 History:** < Kasai, Fumie **Other collection strain no.:** IAM M-481 **Locality:** Mt. Tsukuba/Ibaraki/Japan (1987-04-17) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** MDM (agar); 20 °C ; 4-10µmol/m²/s; 5 M (20°C; 15-27µmol/m²/s) **Habitat:** Freshwater (Stream water) **Other strain no.:** (1)-45 **References:** 139, 567, 1018 **Remarks:** Cryopreserved

NANNOCHLOROPSIS : Eustigmatophyceae

Nannochloropsis gaditana Lubián

- 2587 History:** < RCC (2009) **Other collection strain no.:** RCC 504 **Locality:** Mediterranean Sea (Spanish Coast)/Spain (2001-03-20) **Isolator:** Guillou, L.; Guillou, L. (Re-isolation) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 22-32µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Other strain no.:** BL 120-7

Nannochloropsis granulata Karlson et Potter

- 2588 History:** < RCC (2009) **Other collection strain no.:** RCC 438 **Locality:** Mediterranean Sea (Spanish Coast)/Spain (2000-12-21) **Isolator:** Guillou, L.; Guillou, L. (Re-isolation) **Identified by:** Confirmed at RCC by DNA sequencing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 22-32µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Other strain no.:** BL 39

Nannochloropsis oculata (Droop) Hibberd

- 2145 History:** < IAM (2007) < Hara, Yoshiaki (1988) < Suisan Center of Fukushima Prefecture **Other collection strain no.:** IAM ST-4 **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM (agar); 20°C; 10-20µmol/m²/s; 3 M **Habitat:** Marine

- 2146 History:** < IAM (2007) < Maruyama, Ko (around 1986) **Other collection strain no.:** IAM ST-6 **Locality:** Institute of Fisheries/Nagasaki/Japan **Isolator:** Maruyama, Ko **Identified by:** Maruyama, Ko, et al. **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM (agar); 20°C; 10-20µmol/m²/s; 3 M **Habitat:** Marine **Reference:** 497

NEMALIONOPSIS : Florideophyceae

Nemalionopsis tortuosa Yoneda et Yagi

Syn. *Nemalionopsis shawii* Skuja f. *caroliniana* Howard et Parker

- 1464 History:** < Iima, Masafumi **Locality:** Kase River/Kumamoto/Japan (2000-05-31) **Isolator:** Iima, Masafumi **Identified by:** Iima, Masafumi (2000-05-31) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** ① **Remarks:** Cryopreserved

- 1465 History:** < Iima, Masafumi **Locality:** Koujiro River/Nagasaki/Japan (2001-06-10) **Isolator:** Tateno, Madoka **Identified by:** Iima, Masafumi (2001-06-10) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** ②

- 1466 History:** < Kawachi, Masanobu **Locality:** Ohkubo-ga/Okinawa/Japan (2002-03-16) **Isolator:** Ishimoto, Miwa **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** OOK-1 **Remarks:** Cryopreserved
- 1467 History:** < Higa, Atsushi **Locality:** Izumi/Kumamoto/Japan (2002-11-01) **Isolator:** Higa, Atsushi **Identified by:** Yoshida, Tadao (2002-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** KS2 **Reference:** 142 **Remarks:** Cryopreserved
- 1468 History:** < Higa, Atsushi **Locality:** Izumi/Kumamoto/Japan (2002-11-01) **Isolator:** Higa, Atsushi **Identified by:** Yoshida, Tadao (2002-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** KS5 **Remarks:** Cryopreserved
- 1469 History:** < Higa, Atsushi **Locality:** Izumi/Kumamoto/Japan (2002-11-**) **Isolator:** Higa, Atsushi **Identified by:** Yoshida, Tadao (2002-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** KS6 **Remarks:** Cryopreserved
- 1470 History:** < Iima, Masafumi **Locality:** Kashima/Kumamoto/Japan (2002-03-02) **Isolator:** Iima, Masafumi **Identified by:** Iima, Masafumi (2002-03-02) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** ③ **Remarks:** Cryopreserved
- 1471 History:** < Iima, Masafumi **Locality:** Oh River/Nagasaki/Japan (2002-04-08) **Isolator:** Teruya, Akiko **Identified by:** Iima, Masafumi (2002-04-08) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** ④
- 1472 History:** < Iima, Masafumi **Locality:** Yamanota River (tributary stream of Yue River)/Nagasaki/Japan (2002-09-24) **Isolator:** Teruya, Akiko **Identified by:** Iima, Masafumi (2002-09-24) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** ⑤
- 1735 History:** < Higa, Atsushi **Locality:** Kin River/Kagoshima/Japan (2005-05-03) **Isolator:** Higa, Atsushi **Identified by:** Arai, Shogo (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** AMN1
- 1736 History:** < Higa, Atsushi **Locality:** Kin River/Kagoshima/Japan (2005-05-03) **Isolator:** Higa, Atsushi **Identified by:** Arai, Shogo (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** AMN2 **Remarks:** Cryopreserved
- 1737 History:** < Higa, Atsushi **Locality:** Kin River/Kagoshima/Japan (2005-05-03) **Isolator:** Higa, Atsushi **Identified by:** Arai, Shogo (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** AMN3 **Remarks:** Cryopreserved
- 1738 History:** < Higa, Atsushi **Locality:** Kin River/Kagoshima/Japan (2005-05-03) **Isolator:** Higa, Atsushi **Identified by:** Arai, Shogo (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** AMN4 **Remarks:** Cryopreserved
- 1739 History:** < Higa, Atsushi **Locality:** Okichi Spring/Ehime/Japan (2005-08-09) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** OKC1
- 1740 History:** < Higa, Atsushi **Locality:** Okichi Spring/Ehime/Japan (2005-08-09) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2005-**-**) **States:** Unialgal; Clonal; Non-axenic

- Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** OKC2
- 1741 History:** < Higa, Atsushi **Locality:** Okichi Spring/Ehime/Japan (2005-08-09) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** OKC3
- 1742 History:** < Higa, Atsushi **Locality:** Okichi Spring/Ehime/Japan (2005-08-09) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** OKC4
- 1743 History:** < Higa, Atsushi **Locality:** Okichi Spring/Ehime/Japan (2005-08-09) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** OKC5
- 1744 History:** < Higa, Atsushi **Locality:** Okichi Spring/Ehime/Japan (2005-08-09) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** OKC6 **Remarks:** Cryopreserved
- 1745 History:** < Higa, Atsushi **Locality:** Okichi Spring/Ehime/Japan (2005-08-09) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** OKC7 **Remarks:** Cryopreserved
- 1746 History:** < Higa, Atsushi **Locality:** Okichi Spring/Ehime/Japan (2005-08-09) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** OKC8
- 1747 History:** < Higa, Atsushi **Locality:** Okichi Spring/Ehime/Japan (2005-08-09) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** OKC9
- 1748 History:** < Higa, Atsushi **Locality:** Okichi Spring/Ehime/Japan (2005-08-09) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** OKC10
- 1749 History:** < Higa, Atsushi **Locality:** Okichi Spring/Ehime/Japan (2005-08-09) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** OKC11 **Remarks:** Cryopreserved
- 1750 History:** < Higa, Atsushi **Locality:** Okichi Spring/Ehime/Japan (2005-08-09) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** OKC12 **Remarks:** Cryopreserved
- 2023 History:** < Higa, Atsushi **Locality:** Kuma River, near Meuba Bridge/Kumamoto/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-30) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** KMN1
- 2024 History:** < Higa, Atsushi **Locality:** Kuma River, near Meuba Bridge/Kumamoto/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-30) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** KMN2 **Remarks:** Cryopreserved

- 2025** **History:** < Higa, Atsushi **Locality:** Kuma River, near Meuba Bridge/Kumamoto/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-30) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** KMN3 **Remarks:** Cryopreserved
- 2026** **History:** < Higa, Atsushi **Locality:** Kuma River, near Meuba Bridge/Kumamoto/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-30) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** KMN4 **Remarks:** Cryopreserved
- 2027** **History:** < Higa, Atsushi **Locality:** Kuma River, near Meuba Bridge/Kumamoto/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-30) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** KMN5 **Remarks:** Cryopreserved
- 2028** **History:** < Higa, Atsushi **Locality:** Kuma River, near Meuba Bridge/Kumamoto/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-30) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** KMN6 **Remarks:** Cryopreserved
- 2029** **History:** < Higa, Atsushi **Locality:** Kuma River, near Meuba Bridge/Kumamoto/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-30) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** KMN7 **Remarks:** Cryopreserved
- 2030** **History:** < Higa, Atsushi **Locality:** Kuma River, near Meuba Bridge/Kumamoto/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-30) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** KMN8
- 2031** **History:** < Higa, Atsushi **Locality:** Kuma River, near Meuba Bridge/Kumamoto/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-30) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** KMN9 **Remarks:** Cryopreserved
- 2075** **History:** < Iima, Masafumi **Locality:** Kamabuta River/Nagasaki/Japan (2003-04-08) **Isolator:** Ishikawa, Yukari **Identified by:** Iima, Masafumi (2003-04-08) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** 030408 **Remarks:** Cryopreserved
- 2076** **History:** < Iima, Masafumi **Locality:** Kuma River, Branch/Kumamoto/Japan (2003-05-10) **Isolator:** Ishikawa, Yukari **Identified by:** Iima, Masafumi (2003-05-10) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** 030510 **Remarks:** Cryopreserved
- 2077** **History:** < Iima, Masafumi **Locality:** Kikuchi, Kikoji/Kumamoto/Japan (2003-05-12) **Isolator:** Iima, Masafumi **Identified by:** Iima, Masafumi (2003-05-12) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** 030512
- 2078** **History:** < Iima, Masafumi **Locality:** Shizu River/Kumamoto/Japan (2003-06-01) **Isolator:** Ishikawa, Yukari **Identified by:** Iima, Masafumi (2003-06-01) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** 030601 **Remarks:** Cryopreserved
- 2079** **History:** < Iima, Masafumi **Locality:** Sueoyoshi/Kagoshima/Japan (2003-06-14) **Isolator:** Ishikawa, Yukari **Identified by:** Iima, Masafumi (2003-06-23) **States:** Unialgal; Clonal;

Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** 030314

- 2080 History:** < Iima, Masafumi **Locality:** Asakura, Shimoura/Fukuoka/Japan (2005-06-12) **Isolator:** Kubota, Yuki **Identified by:** Iima, Masafumi (2005-06-14) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** 050612
- 2081 History:** < Iima, Masafumi **Locality:** Asakura, Kuwahara/Fukuoka/Japan (2005-06-30) **Isolator:** Kubota, Yuki **Identified by:** Iima, Masafumi (2005-06-30) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** 050630
- 2082 History:** < Iima, Masafumi **Locality:** Kawabe/Kagoshima/Japan (2006-03-29) **Isolator:** Iima, Masafumi **Identified by:** Iima, Masafumi (2006-03-29) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** 060329
- 2083 History:** < Iima, Masafumi **Locality:** Jin-ya River/Fukuoka/Japan (2006-06-19) **Isolator:** Yamashita, Hirokatsu **Identified by:** Iima, Masafumi (2006-06-20) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; CR+EN **Other strain no.:** 060619

NEOHETEROMITA : Sarcomonadea

Neoheteromita caudratti Howe, Bass, Vickerman, Chao et Cavalier-Smith

- 2416 History:** < Howe, Alexis T. **Locality:** U.K. (2001-**-**) **Isolator:** Vickerman, Keith **Identified by:** Vickerman, Keith (2001-**-**) **Culture conditions:** AF-6 + Wheat; 20°C; 0µmol/m²/s; 2-3 M **Habitat:** Terrestrial (Soil) **Characteristics:** Heterotrophic; Authentic strain; Resting spore forming **Other strain no.:** KV Pc **Reference:** 225

Neoheteromita hederae Howe, Bass, Vickerman, Chao et Cavalier-Smith

- 2417 History:** < Howe, Alexis T. **Locality:** U.K. (2006-**-**) **Isolator:** Howe, Alexis T. **Identified by:** Howe, Alexis T. (2006-**-**) **Culture conditions:** URO-H + Wheat; 20°C; 0µmol/m²/s; 2-3 M **Habitat:** Terrestrial (Plant (Ivy leaf)) **Characteristics:** Heterotrophic; Authentic strain; Resting spore forming **Other strain no.:** IVY21a **Reference:** 225

Neoheteromita soli Howe, Bass, Vickerman, Chao et Cavalier-Smith

- 2418 History:** < Howe, Alexis T. **Locality:** Wytham Wood/U.K. (2006-**-**) **Isolator:** Howe, Alexis T. **Identified by:** Howe, Alexis T. (2006-**-**) **Culture conditions:** URO-H + Wheat; 20°C; 0µmol/m²/s; 2-3 M **Habitat:** Terrestrial (Soil) **Characteristics:** Heterotrophic; Authentic strain; Resting spore forming **Other strain no.:** WA4a **Reference:** 225

NEPHROSELMIS : Prasinophyceae

Nephroselmis astigmatica Inouye et Pienaar

- 252 History:** < Inouye, Isao **Locality:** Tateyama Harbor/Chiba/Japan (1983-08-10) **Isolator:** Inouye, Isao **Identified by:** Inouye, Isao **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; ESM; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** 810-13 **References:** 658, 1262

- 1415 History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2003-06-**) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20 °C ; 20-30µmol/m²/s; 14 D **Habitat:** Marine (Sand and seawater) **Characteristics:** Benthic **Other strain no.:** TKB-075 (nrc054)

Nephroselmis olivacea Stein

- 483 History:** < Suda, Shoichiro **Locality:** Tsuchiura/Ibaraki/Japan (1986-02-**) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic[2011 Aug] **Culture**

conditions: AF-6; 20 °C ; 22-32µmol/m²/s; 20 D **Habitat:** Freshwater (Pond sediment) **Characteristics:** Heterothallic; Mating type(+) **Other strain no.:** S-N-2-1 **References:** 138, 490, 687, 988, 990, 1014, 1262

484 History: < Suda, Shoichiro **Locality:** Tsuchiura/Ibaraki/Japan (1986-02-**) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic[2011 Aug] **Culture conditions:** AF-6; 20 °C ; 22-32µmol/m²/s; 20 D **Habitat:** Freshwater (Pond sediment) **Characteristics:** Heterothallic; Mating type(-) **Gene data:** chloroplast genome (NC_000927); Mitochondrial DNA (AF110138); Plastid DNA (AF137379) **Other strain no.:** S-N-5-8 **References:** 1104, 1105, 1106

485 History: < Suda, Shoichiro **Locality:** Tsuchiura/Ibaraki/Japan (1986-02-**) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic[2011 Aug] **Culture conditions:** AF-6; 20 °C ; 22-32µmol/m²/s; 20 D **Habitat:** Freshwater (Pond sediment) **Characteristics:** Heterothallic; Mating type(-) **Other strain no.:** S-N-3-4 **References:** 490, 687, 988, 990

Nephroselmis pyriformis (Carter) Ettl

1416 History: < TKB **Locality:** East China Sea/Japan (2004-07-28) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 15-22µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-187 (nak76)

1817 History: < TKB **Locality:** Onahama Harbor/Fukushima/Japan (2004-07-07) **Isolator:** Chikuni, Tomoko **Identified by:** Chikuni, Tomoko (2005-**-**) **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-247

Nephroselmis sp.

1414 History: < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2003-06-**) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** IMK; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Characteristics:** Benthic **Other strain no.:** TKB-076 (nrc055)

1417 History: < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2002-08-09) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 15-22µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-041 (nrc015-028)

1418 History: < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2004-03-09) **Isolator:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-096 (nrc)

1818 History: < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2005-03-30) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Other strain no.:** TKB-244

2309 History: < Suda, Shoichiro **Locality:** Harima-nada/Japan (1988-08-**) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 22-32µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** 813H-7

Nephroselmis spinosa Suda et M.M. Watanabe

934 History: < Suda, Shoichiro **Locality:** Port Hedland/Australia (1991-10-10) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 15-22µmol/m²/s; 2 M **Habitat:** Marine (Sediment) **Characteristics:** Euryhaline **Other strain no.:** S222 **References:** 984, 1262

935 History: < Suda, Shoichiro **Locality:** Hamerin Pool/Australia (1991-10-10) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 15-22µmol/m²/s; 2 M **Habitat:** Marine (Sediment) **Characteristics:** Euryhaline **Other strain no.:** SD959-3 **References:** 658, 984, 1262

Nephroselmis viridis Inouye, Pienaar, Suda et Chihara

- 486 History:** < Suda, Shoichiro **Locality:** Harima-Nada/Japan (1983-02-**) **Isolator:** Suda, Shoichiro **Identified by:** Inouye, Isao **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 15-22µmol/m²/s; 1 M **Habitat:** Marine (Sediment) **Characteristics:** Red tide; Authentic strain **Gene data:** 18S rRNA (AB214976) **Other strain no.:** H-70-2 **References:** 138, 1216, 1262

NETRIUM : Charophyceae

Netrium digitus (Ehrenberg ex Ralfs) Itzigsohn et Rothe var. *digitus*

- 2288 History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-587 (=C-311); UTEX 1257 **Isolator:** Biebel **States:** Unialgal; Clonal; Axenic [2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Characteristics:** Homothallic

Netrium digitus (Ehrenberg ex Ralfs) Itzigsohn et Rothe var. *lamellosum* (Brébisson) Grönblad

- 2289 History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-588 (=C-312); UTEX 1255 **Isolator:** Biebel **States:** Unialgal; Clonal; Axenic [2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Characteristics:** Heterothallic; Crosses with UTEX 1256

NITELLA : Charophyceae

Nitella acuminata A.Braun ex Wallman var. *capitulifera* (Allen) Imahori

- 1607 History:** < Sakayama, Hidetoshi **Locality:** Kasumigaura General Park, aquatic plant area/Ibaraki/Japan (2004-07-28) **Identified by:** Sakayama, Hidetoshi (2004-**-**) **States:** Clonal; Non-axenic **Culture conditions:** SWCN-1; SWCN-3; 20°C; 16-20µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN **Other strain no.:** CH-96

Nitella axilliformis Imahori

Syn. *Nitella translucens* (Persoon) C.Agardh f. *axilliformis* (Imahori) R.D. Wood

- 1608 History:** < Shimmen, Teruo **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-1; SWCN-2; SWCN-3; 22 °C ; 16-20µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN **Other strain no.:** CH-27

- 1609 History:** < Sakayama, Hidetoshi **Locality:** Tamatsukuri/Ibaraki/Japan (2004-06-29) **Identified by:** Sakayama, Hidetoshi (2004-**-**) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-1; SWCN-2; SWCN-3; 22°C; 16-20µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN **Other strain no.:** CH-81

Nitella comptonii J.Groves

- 1704 History:** < Sakayama, Hidetoshi **Locality:** Kunigami/Okinawa/Japan (2005-03-03) **Identified by:** Sakayama, Hidetoshi (2005-03-03) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWC-1; SWCN-2; SWCN-3; 20°C; 16-20µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious **Gene data:** 18S-ITS1-5.8S-ITS2-28S (AB236678); atpB (AB236672); psaB (AB236675); rbcL (AB236669) **Other strain no.:** S091 **References:** 871, 872

- 1705 History:** < Sakayama, Hidetoshi **Locality:** Kume Isl./Okinawa/Japan (2005-01-25) **Identified by:** Sakayama, Hidetoshi (2005-01-25) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWC-1; SWCN-2; SWCN-3; 20°C; 16-20µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious **Gene data:** 18S-ITS1-5.8S-ITS2-28S (AB236679); atpB (AB236673); psaB (AB236676); rbcL (AB236670) **Other strain no.:** S137 **References:** 871, 872

- 1706 History:** < Sakayama, Hidetoshi **Locality:** Onna/Okinawa/Japan (2005-03-03) **Identified by:** Sakayama, Hidetoshi (2005-03-03) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWC-1; SWCN-2; SWCN-3; 20°C; 16-20µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious **Gene data:** 18S-ITS1-5.8S-ITS2-28S (AB236680); atpB (AB236674); psaB (AB236677); rbcL (AB236671) **Other strain no.:** S138 **References:** 871, 872

Nitella flexilis (L.) C.Agardh

- 1610 History:** < Shimmen, Teruo **Locality:** Sanda/Hyogo/Japan **States:** Clonal; Non-axenic **Culture**

conditions: mSWC-2; SWCN-1; SWCN-2; SWCN-3; 20°C; 16-20µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN **Other strain no.:** CH-28

- 1611 History:** < Sakayama, Hidetoshi **Locality:** Oh-ike Pond/Hyogo/Japan (2001-06-02) **Isolator:** Sakayama, Hidetoshi **Identified by:** Sakayama, Hidetoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-1; SWCN-2; SWCN-3; 20°C; 16-20µmol/m²/s; 6 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN **Other strain no.:** CH-62; S069 **References:** 735, 871

- 1612 History:** < Sakayama, Hidetoshi **Locality:** Naradani-ike Pond/Kagawa/Japan (2004-06-15) **Identified by:** Sakayama, Hidetoshi (2004-**-**) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-1; SWCN-2; SWCN-3; 20°C; 16-20µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN **Other strain no.:** CH-78 **Reference:** 735

- 1613 History:** < Sakayama, Hidetoshi **Locality:** Lake Yunoko/Tochigi/Japan (2004-07-27) **Identified by:** Sakayama, Hidetoshi (2004-**-**) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-1; SWCN-2; SWCN-3; 20°C; 16-20µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN **Other strain no.:** CH-93 **Reference:** 735

Nitella furcata (Roxburgh ex Bruzelius) C.Agardh var. *furcata*

- 1614 History:** < Shimmen, Teruo **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 20°C; 16-20µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN **Other strain no.:** CH-23 **Reference:** 735

- 1615 History:** < Sakayama, Hidetoshi **Locality:** Urabandai-kogen/Fukushima/Japan (1999-10-08) **Identified by:** Sakayama, Hidetoshi **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 20°C; 16-20µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN **Gene data:** 18S-ITS1-5.8S-ITS2-28S (AB169927); atpB (AB110843); psaB (AB191749); rbcL (AB076059) **Other strain no.:** CH-111; S037 **References:** 735, 871, 873, 874, 875, 876

- 1617 History:** < Sakayama, Hidetoshi **Locality:** Kasumigaura General Park, aquatic plant area/Ibaraki/Japan (2004-07-28) **Identified by:** Sakayama, Hidetoshi (2004-**-**) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 20°C; 16-20µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN **Other strain no.:** CH-95

Nitella gracilens Morioka

Syn. *Nitella furcata* (Roxburgh ex Bruzelius) C.Agardh f. *gracilens* (Morioka) R.D. Wood

- 1619 History:** < Shimmen, Teruo **Identified by:** Sakayama, Hidetoshi (2004-04-13) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWC-1; SWCN-2; 20°C; 16-20µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN **Other strain no.:** CH-26

- 1620 History:** < Nozaki, Hisayoshi **Locality:** Lake Ashinoko/Kanagawa/Japan (1995-11-18) **Isolator:** Ishimoto, Miwa (Re-isolation) **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mSWC-2; SWC-1; SWCN-2; 20°C; 16-20µmol/m²/s; 6 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN **Other strain no.:** CH-34

- 1621 History:** < Sakayama, Hidetoshi **Locality:** Oiji-ga-ike Pond/Hyogo/Japan (2004-06-18) **Isolator:** Ishimoto, Miwa (Re-isolation) **Identified by:** Sakayama, Hidetoshi (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mSWC-2; SWC-1; SWCN-2; 20°C; 16-20µmol/m²/s; 6 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN **Other strain no.:** CH-76

- 1622 History:** < Sakayama, Hidetoshi **Locality:** Oiji-ga-ike Pond/Hyogo/Japan (2004-06-18) **Identified by:** Sakayama, Hidetoshi (2004-**-**) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWC-1; SWCN-2; 20°C; 16-20µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN **Other strain no.:** CH-77

Nitella hyalina (DC.) C.Agardh

- 1623 History:** < Shimmen, Teruo **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-1; SWCN-2; SWCN-3; 20°C; 16-20µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN **Other strain no.:** CH-29

Nitella japonica AllenSyn. *Nitella furcata* (Roxburgh ex Brzelius) C.Agardh f. *japonica* (Allen) R.D. Wood

- 1624 History:** < Sakayama, Hidetoshi **Locality:** Mannou/Kagawa/Japan (2004-06-16) **Identified by:** Sakayama, Hidetoshi (2004-**-**) **States:** Clonal; Non-axenic **Culture conditions:** SWCN-1; SWCN-3; 22 °C; 16-20µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN **Other strain no.:** CH-63

Nitella megaspora (J.Gloves) SakayamaSyn. *Nitella pseudoflabellata* A.Braun f. *megaspora* (J.Groves) R.D. Wood

- 1628 History:** < Sakayama, Hidetoshi **Locality:** Junsai-numa Pond/Hyogo/Japan (2002-09-12) **Identified by:** Sakayama, Hidetoshi **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-3; 20 °C; 16-20µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN **Gene data:** 18S-ITS1-5.8S-ITS2-28S (AB169944); atpB (AB169962); psaB (AB191768); rbcL (AB169970) **Other strain no.:** CH-114; S073 **References:** 871, 874, 875

Nitella mirabilis Nordstedt ex J.Groves

- 1629 History:** < Higuchi, Sumio **Locality:** Ohgemi-ike Pond/Nagano/Japan **Identified by:** Sakayama, Hidetoshi (2004-**-**) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-1; SWCN-2; SWCN-3; 20 °C; 16-20µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious **Other strain no.:** CH-107; S134

Nitella moriokae R.D. Wood

- 1616 History:** < Sakayama, Hidetoshi **Locality:** Naradani-ike Pond/Kagawa/Japan (2004-06-15) **Identified by:** Sakayama, Hidetoshi (2004-**-**) **Formerly identified as:** *Nitella furcata* (Roxburgh ex Brzelius) C.Agardh **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 20 °C; 16-20µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN **Other strain no.:** CH-68

- 1632 History:** < Nohara, Seiichi **Locality:** Lake Kasumigaura, Takahamairi/Ibaraki/Japan (2001-08-23) **Isolator:** Ishimoto, Miwa **Identified by:** Sakayama, Hidetoshi (2004-12-20) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-1; SWCN-3; 20°C; 16-20µmol/m²/s; 6 M **Habitat:** Freshwater **Characteristics:** Monoecious; Germinated from a buried oospore **Other strain no.:** CH-48; S133

- 1633 History:** < Sakayama, Hidetoshi **Locality:** Sanda, Kamizukise/Hyogo/Japan (2002-09-20) **Identified by:** Sakayama, Hidetoshi **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-1; SWCN-3; 20 °C; 16-20µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious **Other strain no.:** CH-61; S105

Nitella pulchella AllenSyn. *Nitella dualis* Nordstedt f. *pulchella* (Allen) R.D. Wood

- 1634 History:** < Sakayama, Hidetoshi **Locality:** Lake Onifukuro-ike/Hyogo/Japan (2001-06-03) **Identified by:** Sakayama, Hidetoshi **States:** Clonal; Non-axenic **Culture conditions:** SWC-1; SWCN-2; 20 °C; 16-20µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Monoecious; CR+EN **Gene data:** atpB (AB110841); rbcL (AB110867) **Other strain no.:** CH-112; S051 **References:** 871, 873

Nitella sp.

- 1618 History:** < Sakayama, Hidetoshi **Locality:** Onnato River/Okinawa/Japan **Identified by:** Sakayama, Hidetoshi (2006-07-10) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 20°C; 16-20µmol/m²/s; 1 M **Habitat:** Freshwater **Other strain no.:** CH-105

- 1635 History:** < Satake, Kiyoshi **Locality:** Jinden-ike Pond/Ibaraki/Japan (2001-07-04) **Identified by:** Kawachi, Masanobu (2001-**-**) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-2; 20°C; 16-20µmol/m²/s; 1 M **Habitat:** Freshwater **Other strain no.:** CH-46

- 1636 History:** < Sakayama, Hidetoshi **Locality:** Kasumigaura General Park, aquatic plant area/Ibaraki/Japan (2004-07-28) **Identified by:** Sakayama, Hidetoshi **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-3; 20°C; 16-20µmol/m²/s; 1 M **Habitat:** Freshwater **Other**

strain no.: CH-97

NITELLOPSIS : Charophyceae

Nitellopsis obtusa (Desvaux) J.Groves

1637 History: < Iwasaki, Naohiko **Locality:** Lake Nojiri/Nagano/Japan (1974-08-08) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-1; SWCN-2; SWCN-3; 20 °C ; 16-20µmol/m²/s; 6 M **Habitat:** Freshwater **Characteristics:** Dioecious; CR+EN **Other strain no.:** CH-1

1638 History: < Higuchi, Sumio < Iwasaki, Naohiko **Locality:** Lake Nojiri/Nagano/Japan (1974-08-08) **Identified by:** Iwasaki, Naohiko (1974-08-08) **States:** Clonal; Non-axenic **Culture conditions:** mSWC-2; SWCN-1; SWCN-2; SWCN-3; 20°C; 16-20µmol/m²/s; 6 M **Habitat:** Freshwater **Characteristics:** Dioecious; Male; CR+EN **Gene data:** rbcL (AB195320) **Other strain no.:** CH-56 **Reference:** 367

NITZSCHIA : Bacillariophyceae

Nitzschia closterium (Ehrenberg) Smith

2351 History: < IAM (2007) **Other collection strain no.:** IAM B-16 **Locality:** Misaki/Kanagawa/Japan **Isolator:** Tokuda **States:** Unialgal; Clonal; Axenic[2012 Mar] **Culture conditions:** ESM; 20°C; 8-15µmol/m²/s; 3 M

Nitzschia palea (Kützing) W.Smith

487 History: < Kasai, Fumie **Locality:** Miyata River/Ibaraki/Japan (1987-04-21) **Isolator:** Kasai, Fumie **Identified by:** Takamura, Noriko **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSi; 15°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (River water) **Other strain no.:** 3st-0-57 **References:** 401, 904, 1018

Nitzschia sp.

1339 History: < Nakano, Shinichi **Locality:** Uchiimi/Ehime/Japan (2003-07-18) **Isolator:** Shime, Mari **Identified by:** Nakano, Shinichi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 15°C; 10-18µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** A6

1340 History: < Nakano, Shinichi **Locality:** Uchiimi/Ehime/Japan (2003-07-18) **Isolator:** Shime, Mari **Identified by:** Nakano, Shinichi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 15°C; 10-18µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** B4

NORRISIELLA : Chlorarachniophyceae

Norrisiella sphaerica Ota et Ishida

2433 History: < TKB **Locality:** Baja California/Mexico (1992-05-22) **Isolator:** Ishida, Ken-ichiro **Identified by:** Ohta, Shuhei (2007-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 15-22µmol/m²/s; 1 M **Habitat:** Marine (Seaweed) **Other strain no.:** TKB-329

NOSTOC : Cyanophyceae

Nostoc carneum Agardh

2107 History: < IAM (2007) < Ishikawa, Masako **Other collection strain no.:** IAM M-35 **Isolator:** Ishikawa, Masako **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** MDM (agar); 20°C; 13-18µmol/m²/s; 3 M **Characteristics:** Chromatic adaptation

Nostoc commune Vaucher ex Bornet et Flahault

2538 History: < Sakamoto, Toshio **Locality:** Kanazawa University/Ishikawa/Japan **Isolator:** Sakamoto, Toshio **Identified by:** Sakamoto, Toshio **States:** Non-Axenic **Culture conditions:** BG-11 (N-free); 20°C; 4-6µmol/m²/s; 2 M **Habitat:** Terrestrial **Characteristics:** N2 fixation; **Gene data:** 16S

rRNA (AB088375); groESL (AB249674); nrtP (AB325916); petH (AB111467) **Other strain no.:** KU002 **Remarks:** Cryopreserved

Nostoc commune Vaucher ex Bornet et Flauhault

- 24 **History:** < IAM (1983) **Other collection strain no.:** IAM M-13 **Locality:** Kurobe Gorge/Toyama/Japan **Isolator:** Watanabe, Atsushi **Identified by:** Fukushima, Hiroshi; Watanabe, Makoto M. (Reidentify) **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 4-10µmol/m²/s; 4 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (Plant (The moss Cavicularia densa)) **Characteristics:** Epiphytic **References:** 235, 567, 669, 671, 1008, 1015, 1125, 1159 **Remarks:** Cryopreserved
- 38 **History:** < IAM (1983) **Other collection strain no.:** IAM M-115 **Locality:** Marble Point/Antarctica **Isolator:** Holm-Hansen, O. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 4-10µmol/m²/s; 4 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (Dry sand) **Other strain no.:** M-48-a **References:** 235, 567 **Remarks:** Cryopreserved

Nostoc linckia Bornet ex Bornet et Flauhault

- 25 **History:** < IAM (1983) **Other collection strain no.:** IAM M-16 (=M-251) **Locality:** Kagoshima/Japan **Isolator:** Ishikawa, Masako **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** MDM (agar); 20°C; 4-10µmol/m²/s; 4 M (25 °C ; 70-80µmol/m²/s) **Gene data:** 16S rRNA (AB074503); gyrB (AB074769); rpoC1 (AB074792); rpoD1 (AB074819) **References:** 567, 937, 1125

Nostoc linckia Bornet ex Bornet et Flauhault var. *arvense* C.B. Rao

- 28 **History:** < IAM (1983) **Other collection strain no.:** IAM M-30 **Locality:** Kagoshima/Japan **Isolator:** Ishikawa, Masako **Identified by:** Fukushima, Hiroshi; Maruyama, Ko; Watanabe, Makoto M. (Reidentify) **States:** Unialgal; Clonal; Axenic **Culture conditions:** MDM (agar); 20°C; 4-10µmol/m²/s; 4 M (25 °C ; 70-80µmol/m²/s) **References:** 235, 567, 1125 **Remarks:** Cryopreserved

Nostoc minutum Desmazières ex Bornet et Flauhault

- 26 **History:** < IAM (1983) **Other collection strain no.:** IAM M-17 **Locality:** Ishigaki Isl./Okinawa/Japan **Isolator:** Ishikawa, Masako **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 4-10µmol/m²/s; 4 M (25°C; 70-80µmol/m²/s) **Characteristics:** Chromatic adaptation **References:** 139, 567, 583, 808, 1125, 1159

- 29 **History:** < IAM (1983) **Other collection strain no.:** IAM M-31 **Locality:** Ishigaki Isl./Okinawa/Japan **Isolator:** Ishikawa, Masako **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 4-10µmol/m²/s; 4 M (25°C; 70-80µmol/m²/s) **References:** 567, 1125, 1159

Nostoc punctiforme (Kützing) Hariot

- 2108 **History:** < IAM (2007) < Watanabe, Atsushi **Other collection strain no.:** IAM M-15 **Isolator:** Watanabe, Atsushi **Identified by:** Watanabe, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 13-18µmol/m²/s; 3 M **Habitat:** Terrestrial (The lichen Peltigera erumpens) **Characteristics:** Nitrogen fixation; Chromatic adaptation

Nostoc sp.

- 2109 **History:** < IAM (2007) < Katoh, Hiroshi **Other collection strain no.:** IAM M-270 **Locality:** Hyogo/Japan **Isolator:** Katoh, Hiroshi **Identified by:** Katoh, Hiroshi **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** BG-11 (agar); 20°C; 13-18µmol/m²/s; 3 M **Habitat:** Terrestrial **Characteristics:** Drought tolerance **Other strain no.:** HK-01

- 2110 **History:** < IAM (2007) < Katoh, Hiroshi **Other collection strain no.:** IAM M-271 **Locality:** Japan **Isolator:** Katoh, Hiroshi **Identified by:** Katoh, Hiroshi **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** BG-11 (agar); 20°C; 13-18µmol/m²/s; 3 M **Habitat:** Terrestrial **Characteristics:** Drought tolerance **Other strain no.:** YK-01

- 2111 History:** < IAM (2007) < Katoh, Hiroshi **Other collection strain no.:** IAM M-272 **Locality:** Japan **Isolator:** Katoh, Hiroshi **Identified by:** Katoh, Hiroshi **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** BG-11 (agar); 20°C; 13-18µmol/m²/s; 3 M **Habitat:** Terrestrial **Characteristics:** Drought tolerance **Other strain no.:** KK-01
- 2112 History:** < IAM (2007) < Tsuzuki, Mikio (2005) < IAM (1994) **Other collection strain no.:** IAM M-280 (=M-47) **Isolator:** Ishikawa, Masako **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 13-18µmol/m²/s; 3 M
- 2113 History:** < IAM (2007) < Katoh, Hiroshi **Other collection strain no.:** IAM M-292 **Locality:** Iwate/Japan (2003-**-**) **Isolator:** Katoh, Hiroshi **Identified by:** Katoh, Hiroshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** BG-11 (agar); 20°C; 13-18µmol/m²/s; 4 M **Habitat:** Terrestrial **Characteristics:** Drought tolerance **Other strain no.:** IK-01
- 2114 History:** < IAM (2007) < Katoh, Hiroshi **Other collection strain no.:** IAM M-294 **Locality:** Himeji/Hyogo/Japan (2002-**-**) **Isolator:** Katoh, Hiroshi **Identified by:** Katoh, Hiroshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** BG-11 (agar); 20°C; 13-18µmol/m²/s; 4 M **Habitat:** Terrestrial **Characteristics:** Drought tolerance **Other strain no.:** HK-02

Nostoc verrucosum Vaucher

- 2539 History:** < Sakamoto, Toshio **Locality:** Ishikawa/Japan **Isolator:** Sakamoto, Toshio **Identified by:** Sakamoto, Toshio **States:** Non-Axenic **Culture conditions:** BG-11 (N-free); 20°C; 4-6µmol/m²/s; 2 M **Habitat:** Freshwater **Characteristics:** N2 fixation; Epilithic **Gene data:** 16S rRNA (AB494996); wspA (AB509258) **Other strain no.:** KU005 **Remarks:** Cryopreserved

OCHROMONAS : Chrysophyceae

Ochromonas danica Pringsheim

- 2142 History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM CS-4 (=CS-2); ATCC 30004; CCAP 933/2; SAG 933-7; UTEX L 1298; CCAP 933/2B; CCMP 585 **Locality:** near Everdrup/Denmark **Isolator:** Pringsheim, E. G. **Identified by:** Pringsheim, E. G. **States:** Unialgal; Clonal; Axenic **Culture conditions:** O (semi-solid); 20°C; 40-50µmol/m²/s; 14 D **Habitat:** Freshwater **References:** 57, 379, 512, 1191

Ochromonas minuta Pringsheim

- 2143 History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM CS-5 (=CS-3); CCAP 933/10; SAG 933-10; UTEX L 1300 **Locality:** Solling/Germany **Isolator:** Pringsheim, E. G. **States:** Unialgal; Clonal; Axenic[2012 Mar] **Culture conditions:** O (semi-solid); 20 °C ; 40-50µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water)

Ochromonas sp.

- 1828 History:** < TKB **Locality:** East China Sea (2004-07-28) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi (2004-**-**) **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** ESM; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-152 **Remarks:** Fragile species to transportation stresses
- 2300 History:** < Suda, Shoichiro **Locality:** Mtsukaido/Ibaraki/Japan (1986-01-17) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-22µmol/m²/s; 2 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Pond sediment) **Other strain no.:** KY-1S

OCHROSPHAERA : Prymnesiophyceae

Ochrosphaera neapolitana Schussnig

- 1395 History:** < TKB **Locality:** Hachijo Isl./Tokyo/Japan (2002-12-13) **Isolator:** Yoshida, Masaki **Identified by:** Yoshida, Masaki (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 35-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-103 (ym-11)

1964 History: < TKB **Locality:** Tatsukushi Beach/Kochi/Japan (2006-07-14) **Isolator:** Chikuni, Tomoko **Identified by:** Chikuni, Tomoko (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** IMK; 20°C; 15-22µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Other strain no.:** TKB-324

ODONTELLA : Bacillariophyceae

Odontella aurita Agardh

589 History: < Ono, Sachiko **Locality:** Penzance/U.K. (1991-03-15) **Isolator:** Ono, Sachiko **Identified by:** Ono, Sachiko **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** f/2; 15°C; 10-18µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** St-22 **Reference:** 1078

Odontella longicurvis (Greville) Hoban

590 History: < Ono, Sachiko **Locality:** Hitachi/Ibaraki/Japan (1990-09-26) **Isolator:** Ono, Sachiko **Identified by:** Ono, Sachiko **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** f/2; 15°C; 10-18µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** St-11

OEDOGONIUM : Chlorophyceae

Oedogonium obesum Wittrock ex Hirn

203 History: < IAM (1983) **Other collection strain no.:** IAM C-348 **Locality:** Japan **Isolator:** Saito, E. **Identified by:** Saito, E. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Other strain no.:** 807 **References:** 235, 567, 1014

OLISTHODISCUS : Raphidophyceae

Olisthodiscus luteus Carter

15 History: < Inouye, Isao **Locality:** Seto Inland Sea/Okayama/Japan **Isolator:** Inouye, Isao **Identified by:** Inouye, Isao **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 15-22µmol/m²/s; 1 M **Habitat:** Marine (Coastal soil) **Characteristics:** Red tide **Other strain no.:** Olisth **References:** 9, 137, 150, 245, 388, 390, 495, 592, 751, 1036, 1115, 1243 **Remarks:** Fragile species to transportation stresses

1379 History: < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2004-03-09) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-097 (nrc) **Remarks:** Fragile species to transportation stresses

1831 History: < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2005-07-**) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Other strain no.:** TKB-262 **Remarks:** Fragile species to transportation stresses

OLTMANNSIELLOPSIS : Ulvophyceae

Oltmannsiellopsis geminata Inouye et Chihara

672 History: < KAGAWA < Yoshimatsu, Sadaaki **Locality:** Harima-nada/Japan (1986-06-04) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Reference:** 567

Oltmannsiellopsis unicellularis Inouye et Chihara

359 History: < Suda, Shoichiro **Locality:** Ieshima Isls./Hyogo/Japan (1984-08-10) **Isolator:** Suda, Shoichiro **Identified by:** Inouye, Isao **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** ESM; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red

tide; Authentic strain **Other strain no.:** 810YB-6 **References:** 49, 567

Oltmannsiellopsis viridis (Hargraves et Steele) Chihara et Inouye

- 360 History:** < Suda, Shoichiro **Locality:** Onagawa Bay/Miyagi/Japan (1984-08-28) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** ESM; 20°C; 32-40 μ mol/m²/s; 1 M **Habitat:** Marine (Seawater) **Gene data:** 18S rRNA (D86495); Plastid DNA (DQ291132) **Other strain no.:** 8280G41-2 **References:** 49, 567, 659, 847, 848, 857
- 1825 History:** < TKB **Locality:** Shizugawa Bay/Miyagi/Japan (2005-08-31) **Isolator:** Chikuni, Tomoko **Identified by:** Chikuni, Tomoko (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 20-30 μ mol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-249

OOCYSTIS : Trebouxiophyceae

Oocystis borgei Snow

- 659 History:** < Kasai, Fumie **Locality:** Watarase River/Gunma/Japan (1987-08-15) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal **Culture conditions:** C; 15°C; 8-15 μ mol/m²/s; 6 M (15°C; 15-22 μ mol/m²/s) **Habitat:** Freshwater (River water) **Other strain no.:** AT2-26 **References:** 567, 1018 **Remarks:** Cryopreserved

Oocystis lacustris Chodat

- 660 History:** < Kasai, Fumie **Locality:** Watarase River/Gunma/Japan (1987-08-15) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 15°C; 8-15 μ mol/m²/s; 6 M (15°C; 15-22 μ mol/m²/s) **Habitat:** Freshwater (River water) **Other strain no.:** Ast-3-1 **References:** 567, 1018 **Remarks:** Cryopreserved
- 661 History:** < Kasai, Fumie **Locality:** Miyata River/Ibaraki/Japan (1987-05-22) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 μ mol/m²/s; 6 M **Habitat:** Freshwater (River water) **Other strain no.:** 4st-3-9 **References:** 567, 1018 **Remarks:** Cryopreserved
- 662 History:** < Kasai, Fumie **Locality:** Miyata River/Ibaraki/Japan (1987-02-25) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15 μ mol/m²/s; 6 M **Habitat:** Freshwater (River water) **Other strain no.:** 1st-2-9 **References:** 567, 1017, 1018 **Remarks:** Cryopreserved

OOLITHOTUS : Prymnesiophyceae

Oolithotus fragilis (Lohmann) Reinhardt

- 1320 History:** < Kawachi, Masanobu **Locality:** Hachijo Isl., Yaene Harbor/Tokyo/Japan (2002-01-23) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic; Coccolith(+)[2013 Jan] **Culture conditions:** mIMR; MNK; 20°C; 25-40 μ mol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** MH 35
- 1321 History:** < Kawachi, Masanobu **Locality:** Hachijo Isl., Yaene Harbor/Tokyo/Japan (2003-01-15) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic; Coccolith(+)[2013 Jan] **Culture conditions:** mIMR; MNK; 20°C; 22-32 μ mol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** MH 58
- 1322 History:** < Kawachi, Masanobu **Locality:** East China Sea (2003-08-06) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic; Coccolith(-)[2013 Jan] **Culture conditions:** MNK; 20°C; 22-32 μ mol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** MH 80

OPHIOCYTIUM : Xanthophyceae

Ophiocytium capitatum Wolle

- 1011 History:** < Moriya, Mayumi **Locality:** Shishizuka-ohike Pond/Ibaraki/Japan (2000-05-**) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** #86 **Reference:** 137
- 1384 History:** < TKB **Locality:** Hyotaro-ike Pond/Ibaraki/Japan (2004-06-24) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 40-50µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TKB-125 (nak19)

Ophiocytium parvulum Wolle

- 1385 History:** < TKB **Locality:** Shishizuka-ohike Pond/Ibaraki/Japan (2004-06-24) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 40-50µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** TKB-126 (nak20)

OSCILLATORIA : Cyanophyceae

Oscillatoria amphibia Agardh ex Gomont

- 361 History:** < Watanabe, Makoto M. **Locality:** Asaji Bay/Nagasaki/Japan (1985-07-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20 °C ; 15-22µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Benthic **Other strain no.:** Oa **References:** 139, 567 **Remarks:** Cryopreserved

Oscillatoria animalis Agardh ex Gomont

- 206 History:** < IAM (1983) **Other collection strain no.:** IAM M-75 **Locality:** Japan **Isolator:** Murano, Fumio **Identified by:** Fukushima, Hiroshi; Watanabe, Makoto M. (Reidentify) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 4-10µmol/m²/s; 4 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater **References:** 139, 235, 567 **Remarks:** Cryopreserved

Oscillatoria laetevirens Gomont

- 31 History:** < IAM (1983) **Other collection strain no.:** IAM M-42 (=M-242) **Locality:** Kawaji Hot Spring/Tochigi/Japan **Isolator:** Ishikawa, Masako **Identified by:** Fukushima, Hiroshi; Watanabe, Makoto M. (Reidentify) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 4-10µmol/m²/s; 4 M (25°C; 70-80µmol/m²/s) **Habitat:** Hot spring **References:** 235, 567, 1159

Oscillatoria limnetica Lemmermann

- 36 History:** < IAM (1983) **Other collection strain no.:** IAM M-92 **Locality:** Nakano-ku/Tokyo/Japan **Isolator:** Murano, Fumio **Identified by:** Fukushima, Hiroshi; Watanabe, Makoto M. (Reidentify) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 4-10µmol/m²/s; 4 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial **References:** 20, 139, 235, 567, 797 **Remarks:** Cryopreserved

Oscillatoria mougeotii Kützing

- 2115 History:** < IAM (2007) < Suzuki, Mikio (2005) < IAM (1994) **Other collection strain no.:** IAM M-281 (=M-72) **Isolator:** Murano, Fumio **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 13-18µmol/m²/s; 3 M **Remarks:** Cryopreserved

Oscillatoria neglecta Lemmermann

- 2116 History:** < IAM (2007) < Murano, Fumio **Other collection strain no.:** IAM M-82 **Isolator:** Murano, Fumio **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** MDM (agar); 20°C; 13-18µmol/m²/s; 3 M **Characteristics:** Toxic **Gene data:** 16S rRNA (AB003168) **Other strain no.:** Murano 400 (PC-G) **References:** 214, 280, 281, 1007

Oscillatoria rosea Utermöhl

- 208 **History:** < Ichimura, Yoji **Other collection strain no.:** IAM M-220 **Locality:** Asaji Bay/Nagasaki/Japan (1983-08-19) **Isolator:** Ichimura, Yoji **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic **Culture conditions:** f/2; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Gene data:** 16S rRNA (AB033164) **Other strain no.:** NGS-1 **References:** 139, 214, 280, 281, 567, 916 **Remarks:** Cryopreserved

Oscillatoria sp.

- 2118 **History:** < IAM (2007) < Safferman, R. S. **Other collection strain no.:** IAM M-117 **Identified by:** Ishida, Tatuya **States:** Unialgal; Clonal; Axenic [2013 Jan] **Culture conditions:** MDM (agar); 20°C; 13-18µmol/m²/s; 3 M **Gene data:** 16S rRNA (AB003163) **Other strain no.:** CU 1407/1 **References:** 214, 280, 281

- 2308 **History:** < Yanagimoto, Masakatsu **Locality:** Lake Chad/Chad **Isolator:** Yanagimoto, Masakatsu **Identified by:** Yanagimoto, Masakatsu **States:** Unialgal **Culture conditions:** SOT; 20°C; 4-10µmol/m²/s; 4 M (25°C; 60-70µmol/m²/s) **Habitat:** Salt water (Water)

Oscillatoria tenuis Agardh ex Gomont

- 33 **History:** < IAM (1983) **Other collection strain no.:** IAM M-50 **Locality:** Setagaya-ku, Ohara-cho/Tokyo/Japan **Isolator:** Ishikawa, Masako **Identified by:** Maruyama, Ko; Watanabe, Makoto M. (Reidentify) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 4-10µmol/m²/s; 4 M (25°C; 70-80µmol/m²/s) **Gene data:** 16S rRNA (AB042844) **References:** 139, 235, 567, 796 **Remarks:** Cryopreserved

OSTREOCOCCUS : Prasinophyceae

Ostreococcus sp.

- 2674 **History:** < RCC (2010) **Other collection strain no.:** RCC 809 **Locality:** Tropical Atlantic (1991-10-01) **Isolator:** Partensky F.; Rodriguez F. (Re-isolation) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 22-32µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Other strain no.:** Eum16BBL_clonal

Ostreococcus tauri Courties et Chrétiennot-Dinet

- 2673 **History:** < RCC (2010) **Other collection strain no.:** RCC 116 **Locality:** Mediterranean Sea (Thau Lagoon) (1995-05-03) **Isolator:** Courties, C. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 22-32µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Authentic strain **Other strain no.:** OTTH 0595

OSTREOPSIS : Dinophyceae

Ostreopsis siamensis Schmidt

- 1404 **History:** < TKB **Locality:** Yaene Harbor/Tokyo/Japan (2003-06-27) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-064 (AK-06) **Remarks:** Fragile species to transportation stresses

OVULINATA : Imbricatea

Ovulinata parva Anderson, Rogerson et Hannah

- 2377 **History:** < TKB **Locality:** Ashiya-hama/Hyogo/Japan (2005-06-27) **Isolator:** Yabuki, Akinori **Identified by:** Yabuki, Akinori (2008-**-**) **Culture conditions:** ESM; 20°C; 0µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Phagotrophic; Benthic **Other strain no.:** TKB-342

OXYRRHIS : Oxyrrheaa

Oxyrrhis marina Dujardin

- 494 **History:** < Sawaguchi, Tomohiro **Locality:** Hachinohe/Aomori/Japan (1988-08-22) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Mixed; Clonal; Non-axenic

Culture conditions: f/2; 20 °C ; 40-50 μ mol/m²/s; 1 M

Habitat: Marine (Seawater)

Characteristics: Predator; Feeds on Pyramimonas parkeae (NIES-254)

Other strain no.: 370OX

Remarks: Fragile species to transportation stresses

PANDORINA : Chlorophyceae

Pandorina colemaniae Nozaki

572 History: < Nozaki, Hisayoshi **Locality:** Kourakuen/Okayama/Japan (1988-10-12) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 μ mol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Authentic strain; Isogamy; Mating type(+); Crosses with NIES-573 **Gene data:** atpB (AB014027); psaA (AB044232); psaB (AB044457); psbC (AB044512); rbcL (D63441) **Other strain no.:** 88-1025-1 **References:** 567, 715, 726, 733, 738

573 History: < Nozaki, Hisayoshi **Locality:** Kourakuen/Okayama/Japan (1988-10-12) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 μ mol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Authentic strain; Isogamy; Mating type(-); Crosses with NIES-572 **Other strain no.:** 89-0131-P-3 **References:** 567, 726

Pandorina morum (O.F. Müller) Bory

242 History: < Suda, Shoichiro **Locality:** Lake Ozenuma/Fukushima/Japan (1983-08-30) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 15-27 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Heterothallic; Mating type(+); Crosses with NIES-243 and 362 **Other strain no.:** Oz-Pa-2 **Reference:** 567

243 History: < Suda, Shoichiro **Locality:** Lake Ozenuma/Fukushima/Japan (1983-08-30) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 15-27 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Heterothallic; Mating type(-); Crosses with NIES-242 **Other strain no.:** Oz-Pa-3 **Reference:** 567

362 History: < Suda, Shoichiro **Locality:** Lake Ozenuma/Fukushima/Japan (1983-08-30) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 15-27 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Heterothallic; Mating type(-); Crosses with NIES-242 **Other strain no.:** Oz-Pa-1 **Reference:** 567

886 History: < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 854 **Locality:** Bloomington/Indiana/U.S.A. (1955-09-**) **Isolator:** Coleman, A. W. **Identified by:** Coleman, A. W. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 μ mol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Heterothallic; Isogamy **Gene data:** atpB (AB044180); psaA (AB044231); psaB (AB044456); psbC (AB044510); psbC (AB044511); rbcL (AB044167) **References:** 56, 733

887 History: < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 880 **Locality:** Tulare County/California/U.S.A. (1951-02-**) **Isolator:** Coleman, A. W. **Identified by:** Coleman, A. W. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 μ mol/m²/s; 1 M **Habitat:** (Soil) **Characteristics:** Heterothallic; Isogamy **Gene data:** atpB (AB044179); psaA (AB044229); psaA (AB044230); psaB (AB044455); psbC (AB044509); rbcL (AB044166) **References:** 56, 733

888 History: < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1726 **Locality:** Kimberley/South Africa (1967-07-22) **Isolator:** Palmer, E. **Identified by:** Palmer, E. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 μ mol/m²/s; 1 M **Habitat:** (Soil) **Characteristics:** Heterothallic; Isogamy; Mating type(+); Crosses with NIES-889 **Reference:** 733

889 History: < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1727 **Locality:** Kimberley/South Africa (1967-07-22) **Isolator:** Palmer, E. **Identified by:** Palmer, E. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 μ mol/m²/s; 1 M **Habitat:**

(Soil) **Characteristics:** Heterothallic; Isogamy; Mating type(–); Crosses with NIES-888 **Gene data:** atpB (AB044178); psaA (AB044228); psaB (AB044454); psbC (AB044508); rbcL (AB044165) **Reference:** 733

- 890 History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 2326 **Locality:** Kawai Dam/Ishikawa/Japan (1977-09-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater (Reservoir water) **Characteristics:** Other water bloom; Heterothallic; Isogamy **Gene data:** atpB (AB044177); psaA (AB044227); psaB (AB044453); psbC (AB044506); psbC (AB044507); rbcL (AB044164) **Other strain no.:** Ishi-1 **References:** 720, 733

Pandorina morum (O.F. Müller) Bory var. *morum*

- 574 History:** < Nozaki, Hisayoshi **Locality:** Nepal (1986-09-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VT; 20°C; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Isogamy; Mating type(+); Crosses with NIES-575 **Gene data:** atpB (AB014025); atpB (AB014026); psaA (AB044226); psaB (AB044452); psbC (AB044505); rbcL (D63442) **Other strain no.:** 7916-P-7 **References:** 567, 662, 698, 715, 733, 738, 740
- 575 History:** < Nozaki, Hisayoshi **Locality:** Nepal (1986-09-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Isogamy; Mating type(–); Crosses with NIES-574 **Other strain no.:** 7916-P-8 **References:** 567, 698

PARACERCOMONAS : Sarcomonadea

Paraceromonas elongata Howe et Cavalier-Smith

- 2450 History:** < Bass, David **Locality:** U.K. (2006-**-**) **Isolator:** Howe, Alexis T. **Identified by:** Bass, David; Howe, Alexis T. (2008-**-**) **Culture conditions:** AF-6 + Wheat; 20°C; 0µmol/m²/s; 2-3 M **Habitat:** Terrestrial (Plant (Ivy leaf)) **Characteristics:** Heterotrophic; Authentic strain; Resting spore forming **Other strain no.:** IVY11 **Reference:** 32

Paraceromonas oxoniensis Howe et Cavalier-Smith

- 2451 History:** < Bass, David **Locality:** Wytham Wood/U.K. (2006-**-**) **Isolator:** Howe, Alexis T. **Identified by:** Bass, David; Howe, Alexis T. (2008-**-**) **Culture conditions:** AF-6 + Wheat; 20°C; 0µmol/m²/s; 2-3 M **Habitat:** Terrestrial (Soil) **Characteristics:** Heterotrophic; Authentic strain; Resting spore forming **Other strain no.:** WA8 **Reference:** 32

Paraceromonas paralaciniaegerens Bass et Cavalier-Smith

- 2452 History:** < Bass, David **Locality:** U.K. (2004-**-**) **Isolator:** Bass, David **Identified by:** Bass, David; Howe, Alexis T. (2008-**-**) **Culture conditions:** AF-6 + Wheat; 20°C; 0µmol/m²/s; 2-3 M **Habitat:** Terrestrial (Soil) **Characteristics:** Heterotrophic; Authentic strain; Resting spore forming **Other strain no.:** 31-1C **Reference:** 32

Paraceromonas pleomorpha Bass et Cavalier-Smith

- 2453 History:** < Bass, David **Locality:** U.K. (2004-**-**) **Isolator:** Bass, David **Identified by:** Bass, David; Howe, Alexis T. (2008-**-**) **Culture conditions:** AF-6 + Wheat; 20°C; 0µmol/m²/s; 2-3 M **Habitat:** Terrestrial (Soil) **Characteristics:** Heterotrophic; Authentic strain; Resting spore forming **Other strain no.:** 19-5C **Reference:** 32

Paraceromonas producta Howe et Cavalier-Smith

- 2454 History:** < Bass, David **Locality:** Wytham Wood/U.K. (2006-**-**) **Isolator:** Howe, Alexis T. **Identified by:** Bass, David; Howe, Alexis T. (2008-**-**) **Culture conditions:** AF-6 + Wheat; 20°C; 0µmol/m²/s; 2-3 M **Habitat:** Terrestrial (Soil) **Characteristics:** Heterotrophic; Authentic strain; Resting spore forming **Other strain no.:** WA42 **Reference:** 32

PARACHLORELLA : Trebouxiophyceae

Parachlorella kessleri (Fott et Nováková) Krienitz, Hegewald, Hepperle, Huss, Rohr et Wolf
Syn. Chlorella kessleri Fott et Nováková

- 2152 History:** < IAM (2007) < Yakult < IAM **Other collection strain no.:** IAM C-33 **Isolator:** Watanabe, Atsushi **Identified by:** Kessler, E. (1994); Confirmed at NIES by DNA sequencing (1994) **States:** Unialgal; Clonal; Axenic [2008 Apr] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488589) **Remarks:** Cryopreserved
- 2153 History:** < IAM (2007) < Yakult < IAM **Other collection strain no.:** IAM C-37 **Isolator:** Watanabe, Atsushi **Identified by:** Kessler, E. (1994); Confirmed at NIES by DNA sequencing (1994) **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488590) **Remarks:** Cryopreserved
- 2154 History:** < IAM (2007) < Yakult < IAM **Other collection strain no.:** IAM C-38 **Isolator:** Watanabe, Atsushi **Identified by:** Kessler, E. (1994); Confirmed at NIES by DNA sequencing (1994) **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488591) **Remarks:** Cryopreserved
- 2155 History:** < IAM (2007) < Yakult < IAM **Other collection strain no.:** IAM C-39 **Isolator:** Watanabe, Atsushi **Identified by:** Kessler, E. (1994); Confirmed at NIES by DNA sequencing (1994) **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488592) **Remarks:** Cryopreserved
- 2156 History:** < IAM (2007) < Yakult < IAM **Other collection strain no.:** IAM C-47 **Identified by:** Kessler, E. (1994); Confirmed at NIES by DNA sequencing (1994) **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488593) **Remarks:** Cryopreserved
- 2157 History:** < IAM (2007) < Ishikawa, Masako **Other collection strain no.:** IAM C-143 **Isolator:** Ishikawa, Masako **Identified by:** Fukushima, Hiroshi; Kessler E. (1993); Confirmed at NIES by DNA sequencing (1993) **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488594) **References:** 496, 548, 559, 560 **Remarks:** Cryopreserved
- 2158 History:** < IAM (2007) **Other collection strain no.:** IAM C-155 **Identified by:** Kessler, E. (1994); Re-identified at NIES by DNA sequencing (1994) **Formerly identified as:** Scenedesmus acutus Meyen **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488595) **Remarks:** Cryopreserved
- 2159 History:** < IAM (2007) < Soeder, C. J. (1966) < CCAP **Other collection strain no.:** IAM C-208; CAUP H1901; CCAP 211/11G; SAG 211-11g; UTEX 262 **Isolator:** Winokur **Identified by:** Kessler, E. (1993); Confirmed at NIES by DNA sequencing (1993) **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Gene data:** 16S rRNA (AJ242769); 16S rRNA (AJ387750); 18S rRNA (AJ242765); 18S rRNA (AB488596) **Reference:** 1212 **Remarks:** Cryopreserved
- 2160 History:** < IAM (2007) < Tsuzuki, Mikio (1988) < Miyachi, Shigetoh (1977) < Schmid, G. H. **Other collection strain no.:** IAM C-531; ATCC 11468; CCAP 211/11H; SAG 211-11h; UTEX 263 **Locality:** U.S.A. **Isolator:** Pratt, R. **Identified by:** Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488597) **References:** 5, 123, 131, 195, 210, 211, 385, 451, 511, 537, 539, 541, 547, 548, 549, 554, 557, 558, 559, 560, 561, 633, 635, 636, 637, 638, 639, 640, 641, 642, 643, 781, 959, 960, 963, 964, 1022, 1023, 1024, 1094, 1095, 1096, 1097, 1098, 1099, 1100, 1101, 1102, 1211, 1223, 1224 **Remarks:** Cryopreserved
- 2161 History:** < IAM (2007) < Kamiya, A.; Miyachi, Shigetoh < Schmid, G. H. **Other collection strain no.:** IAM C-425; SAG 211-11h/20 **Isolator:** Schwarze, P.; Frandsen, N. O. **Identified by:** Re-identified at NIES by DNA sequencing **Formerly identified as:** Chlorella vulgaris Beijerinck **States:** Unialgal; Clonal; Axenic **Culture conditions:** Tre (agar); 20°C; 8-15µmol/m²/s; 3 M **Characteristics:** Yellow mutant of NIES-2160 (IAM C-531) **Gene data:** 18S rRNA (AB488598) **References:** 511, 915, 1101 **Remarks:** Cryopreserved
- 2162 History:** < IAM (2007) < Kamiya, A. (1990-10-23) < Miyachi, Shigetoh < Schmid, G. H. **Other**

collection strain no.: IAM C-539; SAG 9.80 **Identified by:** Re-identified at NIES by DNA sequencing **Formerly identified as:** Chlorella vulgaris Beijerinck **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Characteristics:** White mutant of NIES-2160 (IAM C-531) **Gene data:** 18S rRNA (AB488599) **Other strain no.:** Schwarze 125 **References:** 337, 338, 339, 340, 540, 541, 915, 1101 **Remarks:** Cryopreserved

- 2177 **History:** < IAM (2007) < Tsuzuki, Mikio (2005) < IAM (1994) **Other collection strain no.:** IAM C-625 (=C-151) **Identified by:** Re-identified at NIES by DNA sequencing **Formerly identified as:** Chlorella sp. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488600) **Remarks:** Cryopreserved
- 2178 **History:** < IAM (2007) < Tsuzuki, Mikio (2005) < IAM (1994) **Other collection strain no.:** IAM C-627 (=C-157) **Identified by:** Re-identified at NIES by DNA sequencing **Formerly identified as:** Chlorella sp. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488601) **Remarks:** Cryopreserved
- 2179 **History:** < IAM (2007) < Tsuzuki, Mikio (2005) < IAM (1994) **Other collection strain no.:** IAM C-628 (=C-160) **Identified by:** Re-identified at NIES by DNA sequencing **Formerly identified as:** Chlorella sp. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Gene data:** 18S rRNA (AB488602) **Remarks:** Cryopreserved

PARAPHYSOMONAS : Chrysophyceae

Paraphysomonas vestita De Saedeleer

- 1377 **History:** < TKB **Locality:** Hyotaro-ike Pond/Ibaraki/Japan (2004-10-15) **Isolator:** Yubuki, Naoji **Identified by:** Yubuki, Naoji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** URO + Wheat; 20°C; 20 D **Habitat:** Freshwater (Pond water) **Characteristics:** Heterotrophic **Other strain no.:** TKB-136 (NY0155)

PAULINELLA : Imbricatea

Paulinella chromatophora Lauterborn

- 2635 **History:** < Ishida, Ken-ichiro **Locality:** Fukuroda/Ibaraki/Japan (2006-05-15) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi (2006-05-17) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** 1/2 Warish+Si; 20°C; 1-3µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Symbiotic; Benthic **Other strain no.:** FK01

PAULSCHULZIA : Chlorophyceae

Paulschulzia pseudovolvox Skuja

- 727 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 167 **Locality:** Tvarminne/Finland **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater **Gene data:** atpB (AB014040); psaA (AB044422); psaA (AB044423); psab (AB044473); psbC (AB044531); psbC (AB044532); rbcL (D86837) **References:** 86, 567, 733, 738

PAVLOVA : Pavlovophyceae

Pavlova gyrans Butcher

- 623 **History:** < Sawaguchi, Tomohiro **Locality:** Matoya Bay/Mie/Japan (1984-09-01) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 22-32µmol/m²/s; 2 M **Habitat:** Marine (Water) **Other strain no.:** MB-D-24

Pavlova pinguis J.C. Green

- 1398 **History:** < TKB **Locality:** Wakayama/Japan (2003-05-19) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Water) **Other strain no.:** TKB-068 (AK-10)

Pavlova sp.

- 1399 **History:** < TKB **Locality:** Wakayama/Japan (2003-07-29) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** f/2; 20 °C ; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Water) **Other strain no.:** TKB-069 (AK-11)
- 1400 **History:** < TKB **Locality:** Ishikawa/Japan **Isolator:** Yoshii, Yukie **Identified by:** Kai, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20 °C ; 40-50µmol/m²/s; 1 M **Habitat:** Marine **Other strain no.:** TKB-070 (AK-12)
- 1401 **History:** < TKB **Locality:** Amachi Beach/Okinawa/Japan (2003-12-**) **Isolator:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 40-50µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Benthic **Other strain no.:** TKB-093 (nrc)
- 1815 **History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2005-03-30) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Other strain no.:** TKB-241
- 1816 **History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2005-03-30) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Other strain no.:** TKB-242
- 1965 **History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2005-10-18) **Isolator:** Chikuni, Tomoko **Identified by:** Chikuni, Tomoko (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** IMK; 20°C; 15-22µmol/m²/s; 14 D **Habitat:** Marine (Sand) **Other strain no.:** TKB-326

PEDIASTRUM : Chlorophyceae*Pediastrum angulosum* Meneghini var. *angulosum*

- 300 **History:** < Kasai, Fumie **Locality:** Higashihiroshima/Hiroshima/Japan (1983-10-**) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C; 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** 83-24-1-7 **Reference:** 567

Pediastrum boryanum (Turpin) Meneghini

- 209 **History:** < Watanabe, Michiko H. **Locality:** Lake Kasumigaura/Ibaraki/Japan (1982-12-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** CO1 (D63659) **Other strain no.:** K-P-40 **References:** 188, 567 **Remarks:** Cryopreserved

- 301 **History:** < TAC **Locality:** Lake Shoji/Yamanashi/Japan (1981-10-27) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** Pcy (AB218889) **Other strain no.:** TAC 56-3A (TAN-56-3A) **References:** 567, 631, 632 **Remarks:** Cryopreserved

Pediastrum duplex Meyen

- 212 **History:** < Watanabe, Michiko H. **Locality:** Lake Kawaguchi/Yamanashi/Japan (1981-06-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Other strain no.:** KW-P-1 **References:** 567, 1112 **Remarks:** Cryopreserved

Pediastrum duplex Meyen var. *duplex*

- 210 **History:** < Yuri, Akira **Locality:** Tsukuba/Ibaraki/Japan (1983-05-25) **Isolator:** Yuri, Akira **Identified by:** Yuri, Akira; Watanabe, Masayuki (Reidentify) **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Pond water) **Other strain no.:** Pe-16 **Reference:** 567 **Remarks:** Cryopreserved

- 213 **History:** < Hiwatari, Takehiko **Locality:** Tsukuba/Ibaraki/Japan (1983-05-25) **Isolator:** Hiwatari, Takehiko **Identified by:** Hiwatari, Takehiko; Watanabe, Masayuki (Reidentify) **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Gene data:** atpB (AB084306); Pcy (AB218890); psaB (AB084340); rbcL (AB084333) **Other strain no.:** AQ-P-1 **References:** 207, 567, 740, 1159 **Remarks:** Cryopreserved

Pediastrum duplex Meyen var. *gracillimum* W. et G.S. West

- 211 **History:** < Kasai, Fumie **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-08-23) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** F50-1 **Reference:** 567 **Remarks:** Cryopreserved

- 214 **History:** < Hiwatari, Takehiko **Locality:** Tsukuba/Ibaraki/Japan (1983-08-02) **Isolator:** Hiwatari, Takehiko **Identified by:** Hiwatari, Takehiko; Watanabe, Masayuki (Reidentify) **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C; 20°C; 8-15µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** KR-P-2 **Reference:** 567

Pediastrum simplex Meyen

- 215 **History:** < Watanabe, Michiko H. **Locality:** Lake Biwa/Shiga/Japan (1982-07-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Other strain no.:** B-P-18 **Reference:** 567 **Remarks:** Cryopreserved

- 302 **History:** < Kasai, Fumie **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-08-23) **Isolator:** Kasai, Fumie **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** F-26-4 **Reference:** 567 **Remarks:** Cryopreserved

Pediastrum tetras (Ehrenberg) Ralfs

- 216 **History:** < Watanabe, Michiko H. **Locality:** Lake Kasumigaura/Ibaraki/Japan (1982-12-**) **Isolator:** Watanabe, Michiko H. **Identified by:** Watanabe, Michiko H. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Other strain no.:** K-P-30 **Reference:** 567 **Remarks:** Cryopreserved

PEDINELLA : Dictyochophyceae

Pedinella sp.

- 2346 **History:** < Nozaki, Hisayoshi **Locality:** Lake Nojiri (depth 15m)/Nagano/Japan (1992-06-09) **Isolator:** Nozaki, Hisayoshi **Identified by:** Moestrup, Øjvind; Kawachi, Masanobu (Reidentify) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C/6; C/10; 10°C; 15-20µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Mixotrophic **Other strain no.:** 92-912-1

Pedinella squamata Sekiguchi, Kawachi, Nakayama et Inouye

- 1008 **History:** < Moriya, Mayumi **Locality:** Nakagusuku Bay/Okinawa/Japan (2002-03-16) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 32-40µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Characteristics:** Mixotrophic **Other strain no.:** M-11

PEDINOMONAS : Pedinophyceae

Pedinomonas minor Korshikov

- 363 **History:** < Suda, Shoichiro **Locality:** Tsukuba/Ibaraki/Japan (1984-05-08) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Other strain no.:** H31P4

PELAGOMONAS : Pelagophyceae

Pelagomonas calceolata Andersen et Saunders

- 2689 **History:** < RCC (2010) **Other collection strain no.:** RCC 102; CCMP 1864 **Locality:** Sargasso Sea (1987-10-09) **Isolator:** Vaulot, Daniel **Identified by:** Simon, N. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** MAXEuk 72
- 2690 **History:** < RCC (2010) **Other collection strain no.:** RCC 103; CCMP 1865 **Locality:** Red Sea (Gulf of Aqaba) (1993-01-01) **Isolator:** Veldhuis, M.; Simon, N. (Re-isolation) **Identified by:** Simon, N. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20 °C ; 22-32µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** REDSEA2C
- 2691 **History:** < RCC (2010) **Other collection strain no.:** RCC 108 **Locality:** Equatorial Pacific (1994-11-26) **Isolator:** Vaulot, Daniel **Identified by:** Guillou, L. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** OLI120FC

Pelagomonas calceorata Andersen et Saunders

- 1003 **History:** < Kawachi, Masanobu < CCMP **Other collection strain no.:** CCMP 1214 **Locality:** North Pacific, Central Gyre (1973-02-17) **Isolator:** Lewin, Ralph A. **Identified by:** Andersen, Robert A. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 22 °C ; 20-30µmol/m²/s; 14 D **Habitat:** Marine **Reference:** 137

PENIUM : Charophyceae*Penium margaritaceum* Brébisson

- 217 **History:** < IAM (1983) **Other collection strain no.:** IAM C-397 (=C-589) **Locality:** Rumalbhara/Nepal (1965-11-01) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15µmol/m²/s; 2 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic **Other strain no.:** N-76-20 **References:** 235, 567
- 303 **History:** < Kasai, Fumie **Locality:** Tsukiyono/Gunma/Japan (1984-06-01) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C; 20°C; 8-15µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Ditch water) **Other strain no.:** 84-25-1 **Reference:** 567

PERCOLOMONAS : Heterolobosea*Percolomonas* sp.

- 1441 **History:** < TKB **Locality:** Chiba Harbor/Chiba/Japan (2002-11-29) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2 + Wheat; 15°C; 0µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Heterotrophic **Other strain no.:** TKB-016 (NY0123) **Reference:** 142

PERIDINIUM : Dinophyceae*Peridinium bipes* Stein f. *globosum* Lindemann

- 495 **History:** < Sawaguchi, Tomohiro **Locality:** Lake Onogawa/Fukushima/Japan (1985-07-30) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 35-50µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Other strain no.:** LOND-9 **Reference:** 387 **Remarks:** Fragile species to transportation stresses

Peridinium bipes Stein f. *occultatum* (Lindemann) Lefèvre

- 497 **History:** < Sawaguchi, Tomohiro **Locality:** Lake Kizaki/Nagano/Japan (1988-04-20) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Carefoot; 15°C; 35-50µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Red tide **Other strain no.:** LK420 **Remarks:** Poor growth; Fragile species to

transportation stresses

Peridinium pseudolaeve Lefèvre

- 1405 History:** < TKB **Locality:** Hyotaro-ike Pond/Ibaraki/Japan (2003-01-**) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 35-50µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Characteristics:** Other water bloom **Other strain no.:** TKB-048 (nak-03) **Remarks:** Fragile species to transportation stresses

Peridinium volzii Lemmermann

- 365 History:** < Sawaguchi, Tomohiro **Locality:** Ajiro/Iwate/Japan (1984-09-08) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** Carefoot; 15°C; 35-50µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** HND-1 **Remarks:** Poor growth; Fragile species to transportation stresses
- 501 History:** < Sawaguchi, Tomohiro **Locality:** Tsuchiura/Ibaraki/Japan (1986-04-**) **Isolator:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Carefoot; 15°C; 35-50µmol/m²/s; 2 M **Habitat:** Freshwater (Pond sediment) **Characteristics:** Homothallic **Other strain no.:** SPSP-2 **Remarks:** Fragile species to transportation stresses

Peridinium willei Huitfeldt-Kaas

- 304 History:** < Sawaguchi, Tomohiro **Locality:** Tsukiyono/Gunma/Japan (1984-06-01) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** Carefoot; 15°C; 35-50µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Characteristics:** Homothallic **Other strain no.:** 8423-P **Reference:** 143 **Remarks:** Fragile species to transportation stresses
- 366 History:** < Sawaguchi, Tomohiro **Locality:** Tsuchiura/Ibaraki/Japan (1985-04-13) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** Carefoot; 15°C; 35-50µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Characteristics:** Homothallic **Other strain no.:** SPD-1 **Remarks:** Poor growth; Fragile species to transportation stresses

PHACOTUS : Chlorophyceae

Phacotus lenticularis (Ehrenberg) Stein

- 858 History:** < Nozaki, Hisayoshi **Locality:** Germany **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 15-22µmol/m²/s; 2 M **Gene data:** 18S rRNA (X91628); atpB (AB014039); psaB (AB084373); psaB (AB084374); rbcL (AJ001883) **Other strain no.:** KR 91/1 **References:** 189, 738, 740
- 859 History:** < Nozaki, Hisayoshi < SAG **Other collection strain no.:** SAG 61-1 **Locality:** Germany **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 15-22µmol/m²/s; 2 M **Gene data:** rbcL (AJ001884) **Reference:** 189

PHAEOCYSTIS : Prymnesiophyceae

Phaeocystis globosa Scherffel

- 388 History:** < Sawaguchi, Tomohiro **Locality:** Hachijo Isl./Tokyo/Japan (1984-04-19) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **Formerly identified as:** Phaeocystis pouchetii (Hariot) Lagerheim **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** ESM; 15°C; 20-30µmol/m²/s; 10 D (20°C; 40-50µmol/m²/s) **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Gene data:** CO1 (AB000120) **Other strain no.:** 8-P **References:** 142, 187 **Remarks:** Unstable
- 1396 History:** < TKB **Locality:** Tsukuba Univ. Marine Research Center/Shizuoka/Japan (2003-04-02) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi **Formerly identified as:** Phaeocystis sp. **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** TKB-032 (AK-03)

Reference: 759

PHAEOMONAS : Pinguiphycaceae

Phaeomonas sp.

- 2693 History:** < RCC (2010) **Other collection strain no.:** RCC 503 **Locality:** Mediterranean Sea (Spanish Coast)/Spain (2001-06-25) **Isolator:** Guillou, L.; Guillou, L. (Re-isolation) **Identified by:** Confirmed at RCC by DNA sequencing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** BL_149-10

PHORMIDIUM : Cyanophyceae

Phormidium ambiguum Gomont

- 2119 History:** < IAM (2007) < Murano, Fumio **Other collection strain no.:** IAM M-71 **Isolator:** Murano, Fumio **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** MDM (agar); 20°C; 13-18µmol/m²/s; 3 M **Characteristics:** Hydrogen evolution **Gene data:** 16S rRNA (AB003167) **Other strain no.:** Murano 394 (W1-27(1)) **References:** 20, 214, 280, 281
- 2120 History:** < IAM (2007) < Tsuzuki, Mikio (2005) < IAM (1994) **Other collection strain no.:** IAM M-283 (=M-89) **Isolator:** Murano, Fumio **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 13-18µmol/m²/s; 3 M **Remarks:** Cryopreserved
- 2121 History:** < IAM (2007) < Tsuzuki, Mikio (2005) < IAM (1994) **Other collection strain no.:** NIG, Japan **Locality:** Africa **Isolator:** Ishikawa, Masako **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Axenic[2012 Nov] **Culture conditions:** MDM (agar); 20°C; 13-18µmol/m²/s; 3 M **Habitat:** Terrestrial (Soil) **Remarks:** Cryopreserved
- 2122 History:** < IAM (2007) < Tsuzuki, Mikio (2005) < IAM (1994) **Other collection strain no.:** IAM M-285 (=M-108) **Locality:** Kyoto/Kyoto/Japan **Isolator:** Murano, Fumio; Ishikawa, Masako **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 13-18µmol/m²/s; 3 M **Remarks:** Cryopreserved

Phormidium angustissimum W. et G. S. West

- 2123 History:** < IAM (2007) < Ishikawa, Masako **Other collection strain no.:** IAM M-21 **Isolator:** Ishikawa, Masako **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 13-18µmol/m²/s; 3 M **Remarks:** Cryopreserved

Phormidium foveolarum Gomont

- 32 History:** < IAM (1983) **Other collection strain no.:** IAM M-43 **Locality:** Lake Shirakaba/Nagano/Japan **Isolator:** Ishikawa, Masako **Identified by:** Fukushima, Hiroshi; Watanabe, Makoto M. (Reidentify) **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 4-10µmol/m²/s; 4 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater **References:** 235, 567, 1075, 1108 **Remarks:** Cryopreserved
- 34 History:** < IAM (1983) **Other collection strain no.:** IAM M-59 **Locality:** Sakunami Hot Spring/Miyagi/Japan **Isolator:** Ishikawa, Masako **Identified by:** Maruyama, Ko; Watanabe, Makoto M. (Reidentify) **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 4-10µmol/m²/s; 4 M (25°C; 70-80µmol/m²/s) **References:** 235, 567 **Remarks:** Cryopreserved
- 503 History:** < Watanabe, Makoto M. **Locality:** Mt. Tsukuba/Ibaraki/Japan (1987-04-17) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSi; CSi + Cu; 20°C; 4-10µmol/m²/s; 3 M (20°C; 15-27µmol/m²/s) **Habitat:** Freshwater (Stream sediment) **Other strain no.:** (1)-48 **References:** 567, 1018
- 504 History:** < Kasai, Fumie **Locality:** Miyata River/Ibaraki/Japan (1987-03-25) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Non-clonal; Non-axenic **Culture**

conditions: CSi; CSi + Cu; 20°C; 4-10µmol/m²/s; 3 M (20°C; 15-27µmol/m²/s) **Habitat:** Freshwater (River sediment) **Other strain no.:** 2st-2-4 **References:** 567, 1017, 1018, 1019

- 505 History:** < Kasai, Fumie **Locality:** Watarase River/Gunma/Japan (1987-08-15) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSi; CSi + Cu; 20°C; 4-10µmol/m²/s; 2 M (20°C; 15-27µmol/m²/s) **Habitat:** Freshwater (River sediment) **Other strain no.:** AT4-17 **References:** 567, 1018, 1019

Phormidium henningsii Lemmermann

- 2124 History:** < IAM (2007) < Murano, Fumio **Other collection strain no.:** IAM M-88 **Isolator:** Murano, Fumio **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** MDM (agar); 20°C; 13-18µmol/m²/s; 3 M **Other strain no.:** Murano 387 (W1-21(2)) **Remarks:** Cryopreserved

Phormidium jenkelianum G.Schmid

- 506 History:** < Kasai, Fumie **Locality:** Watarase River/Gunma/Japan (1987-08-15) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSi; CSi + Cu; 20°C; 4-10µmol/m²/s; 2 M (20°C; 15-27µmol/m²/s) **Habitat:** Freshwater (River sediment) **Other strain no.:** AT5-37 **References:** 567, 1018

- 507 History:** < Kasai, Fumie **Locality:** Watarase River/Gunma/Japan (1987-08-15) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSi; CSi + Cu; 20°C; 4-10µmol/m²/s; 2 M (20°C; 15-27µmol/m²/s) **Habitat:** Freshwater (River sediment) **Other strain no.:** Ast-1-4 **References:** 139, 567, 1018, 1019

Phormidium luridum (Kützing) Gomont

- 2125 History:** < IAM (2007) < Murano, Fumio **Other collection strain no.:** IAM M-84 **Isolator:** Murano, Fumio **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 13-18µmol/m²/s; 3 M **Other strain no.:** Murano 397 (W1-32(2)) **Remarks:** Cryopreserved

Phormidium molle (Kützing) Gomont

- 509 History:** < Kasai, Fumie **Locality:** Watarase River/Gunma/Japan (1987-08-15) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CSi; CSi + Cu; 20°C; 4-10µmol/m²/s; 2 M (20°C; 15-27µmol/m²/s) **Habitat:** Freshwater (River sediment) **Other strain no.:** AT2-17 **References:** 567, 1018, 1019

- 2126 History:** < IAM (2007) < Murano, Fumio **Other collection strain no.:** IAM M-77 **Isolator:** Murano, Fumio **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** MDM (agar); 20°C; 13-18µmol/m²/s; 3 M **Other strain no.:** Murano 386 (W1-21U) **Remarks:** Cryopreserved

Phormidium mucicola Huber-Pestalozzi et Naum

- 510 History:** < Watanabe, Makoto M. **Other collection strain no.:** IAM M-221 **Locality:** Mt. Tsukuba/Ibaraki/Japan (1987-04-17) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi; CSi + Cu; 20°C; 4-10µmol/m²/s; 4 M (20°C; 15-27µmol/m²/s) **Habitat:** Freshwater (Stream sediment) **Gene data:** 16S rRNA (AB003165) **Other strain no.:** (1)-23 **References:** 214, 280, 281, 567, 1018

Phormidium ramosum Boye-Petersen

- 305 History:** < Suda, Shoichiro **Locality:** Takatori River/Ibaraki/Japan (1984-12-11) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi; CSi + Cu; 20°C; 4-10µmol/m²/s; 4 M (20°C; 15-27µmol/m²/s) **Habitat:** Freshwater (Sediment) **Other strain no.:** 841211St5-1 **References:** 139, 567, 1017, 1018

Phormidium sp.

- 2128 History:** < IAM (2007) < BIU (UTEX; 1961-08-11) **Other collection strain no.:** IAM M-99; (BIU 426) **Isolator:** Boresch **Identified by:** Ishida, Tatuya **States:** Unialgal; Clonal; Axenic **Culture conditions:** MDM (agar); 20°C; 13-18µmol/m²/s; 3 M **Gene data:** 16S rRNA

(AB003169); gyrB (AB074775); rpoC1 (AB074798); rpoD1 (AB074825) **References:** 280, 281, 937 **Remarks:** Cryopreserved

PICOCHLORUM : Trebouxiophyceae

Picochlorum sp.

- 1270 History:** < Moriya, Mayumi **Locality:** Banzu Tidal Flat/Chiba/Japan (2002-05-14) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi; Confirmed at NIES by DNA sequencing **Formerly identified as:** Nanochlorum sp. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Marine (Tidal flat water) **Gene data:** 18S rRNA (AB488603) **Other strain no.:** M-66 **Remarks:** Cryopreserved

PICOPHAGUS : Chrysophyceae

Picophagus flagellatus Guillow et Chrétiennot-Dinet

- 2586 History:** < RCC (2009) **Other collection strain no.:** RCC 22; CCMP 1953 **Locality:** Equatorial Pacific (1994-11-07) **Isolator:** Vaulot, Daniel **Identified by:** Guillou, L. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Rice; 20°C; 15-20µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Heterotrophic; Authentic strain **Other strain no.:** OLI11SC2D

PLACIDIA : Placididea

Placidia cafeteriopsis Moriya, Nakayama et Inouye

- 1013 History:** < Moriya, Mayumi **Locality:** Tokyo Bay/Kanagawa/Japan (1998-01-11) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** SUY 1/10; 15°C; 0µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Phagotrophic; Heterotrophic **Gene data:** 18S rRNA (AB061218) **Other strain no.:** #51
- 1014 History:** < Moriya, Mayumi **Locality:** Kamaishi Harbor/Iwate/Japan (1999-01-**) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** SUY 1/10; 15°C; 0µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Phagotrophic; Heterotrophic **Other strain no.:** #69 **Reference:** 574

PLANCTONEMA : Chlorophyceae

Planctonema lauterbornii Schmidle

- 514 History:** < Niiyama, Yuko **Locality:** Lake Kasumigaura/Ibaraki/Japan (1988-08-18) **Isolator:** Niiyama, Yuko **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Other strain no.:** K880818 **Reference:** 567 **Remarks:** Cryopreserved

PLANKTOSPHAERIA : Chlorophyceae

Planktosphaeria gelatinosa G.M. Smith

- 2268 History:** < IAM (2007) **Other collection strain no.:** IAM C-405 **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 8-15µmol/m²/s; 3 M

PLANKTOTHRICOIDES : Cyanophyceae

Planktothricoides raciborskii Suda et M.M. Watanabe

Syn. *Oscillatoria raciborskii* Woloszynska

- 207 History:** < Suda, Shoichiro **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-06-16) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** CT; MG; 20°C; 15-25µmol/m²/s; 20 D **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Type strain **Gene data:** 16S rRNA (AB045960) **Other strain no.:** K-O-R **References:** 477, 567, 671, 991, 1159

917 History: < Suda, Shoichiro **Locality:** Lake Inbanuma/Chiba/Japan **Identified by:** Li, Renhui **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** CT; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Water bloom **Gene data:** 16S rRNA (AB045953) **Other strain no.:** INBaOR Reference: 991

PLANKTOTHRIX : Cyanophyceae

Planktothrix agardhii (Gomont) Anagnostidis et Komárek
Syn. Oscillatoria agardhii Gomont

- 204 History:** < Suda, Shoichiro **Other collection strain no.:** IAM M-244; CCAP 1460/5; PCC 10704 **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-08-24) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** CB; 25°C; 20-30µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Type strain **Gene data:** 16S rRNA (AB045954) **Other strain no.:** K-O-A **References:** 50, 192, 290, 323, 477, 567, 582, 593, 594, 595, 669, 671, 903, 905, 906, 949, 951, 953, 954, 991, 1077, 1159, 1187, 1272 **Remarks:** Cryopreserved
- 205 History:** < TAC **Locality:** Lake Kasumigaura/Ibaraki/Japan (1982-09-16) **Isolator:** Watanabe, Masayuki **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MA; 25°C; 20-30µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** TAC 53 (K-TAN-53) **References:** 290, 477, 567, 578, 858, 950, 991 **Remarks:** Cryopreserved
- 594 History:** < Takamura, Noriko **Locality:** Northern Ireland/U.K. **Identified by:** Suda, Shoichiro (Reidentify) **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; 20°C; 4-10µmol/m²/s; 2 M (20°C; 15-27µmol/m²/s) **Habitat:** Freshwater **Gene data:** 16S rRNA (AB045956) **Other strain no.:** K-8 **References:** 567, 991 **Remarks:** Cryopreserved
- 595 History:** < Takamura, Noriko **Locality:** Northern Ireland/U.K. **Identified by:** Suda, Shoichiro (Reidentify) **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; 20°C; 4-10µmol/m²/s; 2 M (20°C; 15-27µmol/m²/s) **Habitat:** Freshwater **Gene data:** 16S rRNA (AB045957) **Other strain no.:** 3A(2) **References:** 292, 567, 991 **Remarks:** Cryopreserved
- 596 History:** < Takamura, Noriko **Locality:** Veluwemeer/Netherland **Identified by:** Suda, Shoichiro (Reidentify) **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; 20°C; 4-10µmol/m²/s; 2 M (20°C; 15-27µmol/m²/s) **Habitat:** Freshwater **Gene data:** 16S rRNA (AB045958) **Other strain no.:** VLOA 7 **References:** 90, 290, 567, 578, 991 **Remarks:** Cryopreserved
- 905 History:** < Suda, Shoichiro < CCAP **Other collection strain no.:** CCAP 1459/11A **Locality:** Windermere/England, Cambria/U.K. (1975-**-**) **Isolator:** Jaworski, G. H. M. **Identified by:** Suda, Shoichiro (Reidentify) **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko); Toxic **Gene data:** 16S rRNA (AB045896) **References:** 884, 991 **Remarks:** Toxic; Cryopreserved
- 989 History:** < Sano, Tomoharu **Locality:** Lake Mikata/Fukui/Japan (2000-12-05) **Isolator:** Sano, Tomoharu **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** Mikata1-3 **Remarks:** Cryopreserved
- 990 History:** < Sano, Tomoharu **Locality:** Lake Mikata/Fukui/Japan (2000-12-05) **Isolator:** Sano, Tomoharu **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** Mikata1-6 **Remarks:** Cryopreserved
- 1263 History:** < Sano, Tomoharu **Locality:** Germany (2000-08-18) **Isolator:** Sano, Tomoharu **Identified by:** Otsuka, Shigeto **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko); Toxic **Other strain no.:** DU-Oa-2-3 **Remarks:** Toxic; Cryopreserved
- 1264 History:** < Sano, Tomoharu **Locality:** Neuglobsow/Brandenburg/Germany (2000-08-18) **Isolator:** Sano, Tomoharu **Identified by:** Otsuka, Shigeto **States:** Unialgal; Clonal; Non-axenic **Culture**

conditions: CT; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko); Toxic **Other strain no.:** DU-Oa-3-3 **Remarks:** Toxic; Cryopreserved

- 1265 History:** < Sano, Tomoharu **Locality:** Neuglobsow/Brandenburg/Germany (2000-08-15) **Isolator:** Sano, Tomoharu **Identified by:** Otsuka, Shigeto **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** DU-Oa-5-5 **Remarks:** Cryopreserved

Planktothrix rubescens (DC. ex Gomont) Anagnostidis et Komárek
Syn. *Oscillatoria rubescens* DC. ex Gomont

- 610 History:** < CCAP **Other collection strain no.:** CCAP 1459/22; NIVA CYA 18 **Locality:** Lake Gjersjøen/Norway **Isolator:** Romstad **Identified by:** Suda, Shoichiro (Reidentify) **Formerly identified as:** *Oscillatoria agardhii* Gomont **States:** Axenic **Culture conditions:** CB; MA; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Type strain **Gene data:** 16S rRNA (AB045959) **References:** 221, 383, 567, 880, 881, 882, 991 **Remarks:** Cryopreserved

- 928 History:** < Suda, Shoichiro < CCAP **Other collection strain no.:** CCAP 1459/14 **Locality:** England, Cambria/U.K. (1975-**-**) **Isolator:** Jaworski, G. H. M. **Identified by:** Suda, Shoichiro (Reidentified) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20 °C ; 22-30µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko); Toxic **References:** 478, 883, 884 **Remarks:** Toxic; Cryopreserved

- 1266 History:** < Sano, Tomoharu **Locality:** Neuglobsow/Brandenburg/Germany (2000-08-19) **Isolator:** Sano, Tomoharu **Identified by:** Sano, Tomoharu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko); Toxic **Other strain no.:** DU-Oa-4-1 **Reference:** 478 **Remarks:** Toxic; Cryopreserved

- 1267 History:** < Sano, Tomoharu **Locality:** Neuglobsow/Brandenburg/Germany (2000-08-19) **Isolator:** Sano, Tomoharu **Identified by:** Sano, Tomoharu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko); Toxic **Other strain no.:** DU-Oa-4-2 **Remarks:** Toxic; Cryopreserved

PLATYDORINA : Chlorophyceae

Platydorina caudata Kofoid

- 728 History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1658 **Locality:** Kansas/U.S.A. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20 °C ; 32-40µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Gene data:** atpB (AB014032); psaA (AB044211); psaA (AB044212); psaB (AB044442); psbC (AB044494); rbcL (D86828) **References:** 244, 567, 662, 716, 733, 738

- 729 History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1661 **Locality:** Kansas/U.S.A. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 23 °C ; 180-200µmol/m²/s; 1 M **Habitat:** Freshwater marsh **Gene data:** rbcL (D86827) **References:** 244, 567, 662, 716

PLATYMONAS : Prasinophyceae

Platymonas subcordiformis (Wille) Hazen
Syn. *Tetraselmis subcordiformis* (Wille) Butcher

- 2572 History:** < IAM (2007) < BIU (UTEX; 1967) **Other collection strain no.:** IAM C-298; SAG 161-1a; UTEX 171; CCAP 161/1a **Locality:** New Haven/Connecticut/U.S.A. **Isolator:** Lewin, Ralph A. **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** BES2 (agar); 20°C; 8-15µmol/m²/s; 3 M **Reference:** 460

PLECTONEEMA : Cyanophyceae

Plectonema calothricoides Gomont

- 2129 History:** < IAM (2007) < Safferman, R. S. **Other collection strain no.:** IAM M-120; (BIU 598) **Isolator:** Allen, M. B. **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** MDM (agar); 20°C; 13-18 μ mol/m²/s; 3 M **Other strain no.:** Allen M931 **Reference:** 141

Plectonema radiosum Gomont

- 515 History:** < Watanabe, Makoto M. **Locality:** Toyamasawa/Tochigi/Japan (1987-04-30) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** CSi; 20°C; 4-10 μ mol/m²/s; 3 M (20°C; 15-27 μ mol/m²/s) **Habitat:** Freshwater (River water) **Other strain no.:** NK-12 **References:** 221, 502, 567, 1018, 1019

PLEODORINA : Chlorophyceae

Pleodorina californica Shaw

- 576 History:** < Ogasawara, Yoshikazu **Locality:** Oumi-Hachiman/Gifu/Japan (1990-08-12) **Isolator:** Ogasawara, Yoshikazu **Identified by:** Ogasawara, Yoshikazu **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 25°C; 100-120 μ mol/m²/s; 1 M **Habitat:** Freshwater (Paddy water) **Reference:** 567

- 735 History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 809; SAG 162/1; IAM C-336 (=C-590) **Locality:** Bloomington/Indiana/U.S.A. **Isolator:** Starr, R. C. **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** VT; 20°C; 32-40 μ mol/m²/s; 1 M **Habitat:** (Freshwater) **Gene data:** atpB (AB014004); psaA (AB044190); psaA (AB044191); psaA (AB044192); psaB (AB044430); psbC (AB044480); rbcL (D63439) **References:** 126, 715, 733, 738

Pleodorina indica (Iyengar) Nozaki

- 736 History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1990 **Locality:** Mexico **Isolator:** Morro, S. **Identified by:** Nozaki, Hisayoshi (Reidentify) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 23°C; 180-200 μ mol/m²/s; 1 M **Habitat:** (Soil) **Gene data:** atpB (AB014006); psaA (AB044195); psaA (AB044196); psaA (AB044197); psaB (AB044432); psaB (AB044433); psbC (AB044483); rbcL (D86834) **References:** 716, 733, 738

Pleodorina japonica Nozaki

- 577 History:** < Nozaki, Hisayoshi **Other collection strain no.:** UTEX 2523 **Locality:** Fuji/Shizuoka/Japan (1986-07-13) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27 μ mol/m²/s; 1 M **Habitat:** Freshwater (Paddy water) **Characteristics:** Authentic strain; Homothallic; Dioecious; Anisogamy **Gene data:** rbcL (D63440) **Other strain no.:** 6715-7 **References:** 378, 567, 715, 724, 733, 738

Pleodorina starrii Nozaki, Ott et Coleman

- 1361 History:** < Nozaki, Hisayoshi **Locality:** Lake Sagami/Kanagawa/Japan (2000-06-02) **Identified by:** Nozaki, Hisayoshi (2005) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Other water bloom; Heterothallic; Anisogamy; Male **Other strain no.:** 2000-602-P11 **Reference:** 662

- 1362 History:** < Nozaki, Hisayoshi **Locality:** Lake Sagami/Kanagawa/Japan (2000-06-02) **Identified by:** Nozaki, Hisayoshi (2005) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Other water bloom; Heterothallic; Anisogamy; Female **Other strain no.:** 2000-602-P14 **Reference:** 741

- 1363 History:** < Nozaki, Hisayoshi **Locality:** Lake Sagami/Kanagawa/Japan (2000-06-02) **Identified by:** Nozaki, Hisayoshi (2005) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; VTAC; 20°C; 22-32 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Other water bloom; Authentic strain; Heterothallic; Anisogamy; Male **Other strain no.:** 2000-602-P15

- 1364 History:** < Nozaki, Hisayoshi **Locality:** Lake Tsukui/Kanagawa/Japan (2001-06-08) **Identified by:** Nozaki, Hisayoshi (2005) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Other water

bloom; Heterothallic; Anisogamy; Male **Other strain no.:** 2001-608-P17

- 1365 History:** < Nozaki, Hisayoshi **Locality:** Lake Tsukui/Kanagawa/Japan (2001-06-08) **Identified by:** Nozaki, Hisayoshi (2005) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Other water bloom; Heterothallic; Anisogamy; Male **Other strain no.:** 2001-608-P21
- 1366 History:** < Nozaki, Hisayoshi **Locality:** Lake Tsukui/Kanagawa/Japan (2001-06-08) **Identified by:** Nozaki, Hisayoshi (2005) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Other water bloom; Heterothallic; Anisogamy; Female **Other strain no.:** 2001-608-P26
- 1852 History:** < Nozaki, Hisayoshi **Locality:** Lake Tsukui/Kanagawa/Japan (2001-06-08) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi (2005-07-01) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Other water bloom; Heterothallic; Anisogamy; Male; F1 clone of NIES-1364, 1365 and 1366 **Other strain no.:** 2005-701-F1-1 **Reference:** 708
- 1853 History:** < Nozaki, Hisayoshi **Locality:** Lake Tsukui/Kanagawa/Japan (2001-06-08) **Identified by:** Nozaki, Hisayoshi (2005-07-01) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Other water bloom; Heterothallic; Anisogamy; Male; F1 clone of NIES-1364, 1365 and 1366 **Gene data:** EF-1 like (AB272614); MID (AB272614) **Other strain no.:** 2005-701-F1-3 **Reference:** 708
- 1854 History:** < Nozaki, Hisayoshi **Locality:** Lake Tsukui/Kanagawa/Japan (2001-06-08) **Identified by:** Nozaki, Hisayoshi (2005-07-01) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Other water bloom; Heterothallic; Anisogamy; Female; F1 clone of NIES-1364, 1365 and 1366 **Other strain no.:** 2005-701-F1-5 **Reference:** 708

PLEUROCHRYYSIS : Prymnesiophyceae

Pleurochrysis haptonemofera (Inouye et Chihara) Gayral et Fresnel

- 1813 History:** < TKB **Locality:** Yufu Isl./Okinawa/Japan (2004-12-24) **Isolator:** Chikuni, Tomoko **Identified by:** Chikuni, Tomoko (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Salt water **Other strain no.:** TKB-230

Pleurochrysis roscoffensis (Dangeard) Fresnel et Billard

Syn. *Cricosphaera roscoffensis* (Dangeard) Gayral et Fresnel

- 8 History:** < Watanabe, Makoto M. **Locality:** Osaka Bay/Osaka/Japan (1978-09-**) **Isolator:** Yamochi, Susumu **Identified by:** Yamochi, Susumu **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Gene data:** CO1 (AB000117) **Other strain no.:** OCri **References:** 142, 187, 809

Pleurochrysis sp.

- 1814 History:** < TKB **Locality:** Amami Isl./Kagoshima/Japan (2005-02-26) **Isolator:** Chikuni, Tomoko **Identified by:** Chikuni, Tomoko (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-231

PLEUROTAENIUM : Charophyceae

Pleurotaenium cylindricum (Turner) Schmidle var. *stuhlmannii* (Hieronymus) Krieger

- 306 History:** < Kasai, Fumie **Locality:** Niimi/Okayama/Japan (1983-09-11) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 60-70µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy water) **Characteristics:** Homothallic **Other strain no.:** F57-18-4 **Reference:** 567

Pleurotaenium ehrenbergii (Ralfs) De Bary var. *curtum* Krieger

- 308 History:** < IAM (1983) **Other collection strain no.:** IAM C-379 **Locality:** Wakayama/Japan

(1969-10-**) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** CA; 20°C; 8-15µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type(–) **Other strain no.:** W-1-3 **Reference:** 567

311 History: < IAM (1983) **Other collection strain no.:** IAM C-430 **Locality:** Iriomote Isl./Okinawa/Japan (1973-06-10) **Isolator:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 8-15µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type(+) **Other strain no.:** R-13-19 **Reference:** 567

Pleurotaenium ehrenbergii (Ralfs) De Bary var. *ehrenbergii*

309 History: < IAM (1983) **Other collection strain no.:** IAM C-467 (=C-591) **Locality:** Iriomote Isl./Okinawa/Japan (1973-06-10) **Isolator:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 8-15µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type(+); Crosses with NIES-310 **Other strain no.:** R-13-27 **References:** 235, 567

310 History: < IAM (1983) **Other collection strain no.:** IAM C-468 **Locality:** Iriomote Isl./Okinawa/Japan (1973-06-10) **Isolator:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 8-15µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type(–); Crosses with NIES-309 **Other strain no.:** R-13-30 **References:** 235, 567

Pleurotaenium nodosum (Bailey ex Ralfs) Lundell var. *borgei* Grönblad

663 History: < Nozaki, Hisayoshi **Locality:** Miyatoko Mire/Fukushima/Japan (1993-09-13) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27µmol/m²/s; 2 M **Habitat:** Freshwater (Bog water) **Other strain no.:** 93-913-Gon-1 **Reference:** 567

664 History: < Nozaki, Hisayoshi **Locality:** Miyatoko Mire/Fukushima/Japan (1993-09-13) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27µmol/m²/s; 2 M **Habitat:** Freshwater (Bog water) **Other strain no.:** 93-913-Gon-3 **Reference:** 567

Pleurotaenium nodosum (Bailey ex Ralfs) Lundell var. *gutwinskii* Krieger

787 History: < Kasai, Fumie **Locality:** 4 km northwest of Melaka/Malaysia (1985-08-20) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Crosses with NIES-788 **Other strain no.:** 85-30-9

788 History: < Kasai, Fumie **Locality:** 4 km northwest of Melaka/Malaysia (1985-08-20) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Crosses with NIES-787 **Other strain no.:** 85-30-56

Pleurotaenium nodosum (Bailey ex Ralfs) Lundell var. *nodosum*

312 History: < Kasai, Fumie **Locality:** Higashihiroshima/Hiroshima/Japan (1983-10-19) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CAM; 20°C; 8-15µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Pond water) **Other strain no.:** 83-24-3 **Reference:** 567

785 History: < Kasai, Fumie **Locality:** Imuta-ike Pond/Kagoshima/Japan (1986-10-09) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Heterothallic; Crosses with NIES-786 **Other strain no.:** 86-7-15

786 History: < Kasai, Fumie **Locality:** Imuta-ike Pond/Kagoshima/Japan (1986-10-09) **Isolator:**

Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22 °C; 55-70µmol/m²/s; 3 M (25 °C; 70-80µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Heterothallic; Crosses with NIES-785 **Other strain no.:** 86-7-16

Pleurotaenium ovatum Nordstedt

- 313 **History:** < Kasai, Fumie **Locality:** Niimi/Okayama/Japan (1983-09-11) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Paddy water) **Other strain no.:** F57-17-8 **Reference:** 567

POLYEDRIOPSIS : Chlorophyceae

Polyedriopsis spinulosa (Schmidle) Schmidle

- 232 **History:** < Kasai, Fumie **Locality:** Tsukuba/Ibaraki/Japan (1984-05-07) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Pond water) **Other strain no.:** F128 **Reference:** 567

PORPHYRIDIUM : Porphyridiophyceae

Porphyridium aerugineum Geitler

- 1957 **History:** < TAC **Locality:** Nepal (1986-09-24) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20 °C; 4-6µmol/m²/s; 1 M **Habitat:** Terrestrial **Other strain no.:** TAC 578 **Remarks:** Cryopreserved

- 1958 **History:** < TAC **Locality:** Nepal (1986-09-24) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20 °C; 4-6µmol/m²/s; 1 M **Habitat:** Terrestrial **Other strain no.:** TAC 579 **Remarks:** Cryopreserved

- 1959 **History:** < TAC **Locality:** Nepal (1986-09-24) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20 °C; 4-6µmol/m²/s; 1 M **Habitat:** Terrestrial **Other strain no.:** TAC 580

- 1960 **History:** < TAC **Locality:** Nepal (1986-09-24) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20 °C; 4-6µmol/m²/s; 1 M **Habitat:** Terrestrial **Other strain no.:** TAC 581 **Remarks:** Cryopreserved

Porphyridium purpureum (Bory) Drew et Ross

Syn. *Porphyridium cruentum* (Agardh) Nägeli

- 2138 **History:** < IAM (2007) < Fujita, Yoshihiko; Nozawa, Koji **Other collection strain no.:** IAM R-1 **Locality:** Takesako Hot Spring/Kagoshima/Japan **Isolator:** Nozawa, Koji **Identified by:** Nozawa, Koji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 13-18µmol/m²/s; 3 M **Habitat:** Hot spring **References:** 6, 361, 470, 863, 948, 1097, 1100, 1194, 1195, 1244 **Remarks:** Cryopreserved

- 2139 **History:** < IAM (2007) < Murano, Fumio **Other collection strain no.:** IAM R-2 **Locality:** Botanical Garden at University of Tokyo/Tokyo/Japan **Isolator:** Murano, Fumio **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Axenic[2011 Aug] **Culture conditions:** ESM; 20°C; 13-18µmol/m²/s; 3 M **Habitat:** Terrestrial **Reference:** 863 **Remarks:** Cryopreserved

- 2140 **History:** < IAM (2007) < Imai **Other collection strain no.:** IAM R-3 **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 13-18µmol/m²/s; 3 M **Reference:** 794 **Remarks:** Cryopreserved

Porphyridium sp.

- 1032 **History:** < Hatakeyama, Noriko **Locality:** Iriomote Isl./Okinawa/Japan (1990-10-16) **Isolator:** Hatakeyama, Noriko **Identified by:** Hatakeyama-Ishida, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 15-27µmol/m²/s; 2 M **Habitat:** Brackish water

(Water) **Reference:** 142 **Remarks:** Cryopreserved

- 1033 History:** < Hatakeyama, Noriko **Locality:** Iriomote Isl./Okinawa/Japan (1990-10-16) **Isolator:** Hatakeyama, Noriko **Identified by:** Hatakeyama-Ishida, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 15-27µmol/m²/s; 2 M **Habitat:** Brackish water (Water) **Remarks:** Cryopreserved
- 1034 History:** < Hatakeyama, Noriko **Locality:** Florida/U.S.A. (1991-08-11) **Isolator:** Hatakeyama, Noriko **Identified by:** Hatakeyama-Ishida, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 15-27µmol/m²/s; 3 M **Habitat:** Brackish water (Sediment) **Remarks:** Cryopreserved
- 1035 History:** < Hatakeyama, Noriko **Locality:** Florida/U.S.A. (1991-08-11) **Isolator:** Hatakeyama, Noriko **Identified by:** Hatakeyama-Ishida, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 15-27µmol/m²/s; 2 M **Habitat:** Brackish water (Sediment) **Remarks:** Cryopreserved
- 1807 History:** < TKB **Locality:** Motobu/Okinawa/Japan (2005-01-22) **Isolator:** Yamaguchi, Haruyo **Identified by:** Nakayama, Takeshi (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-255 **Remarks:** Cryopreserved

POTERIOOCHROMONAS : Chrysophyceae

Poterioochromonas malhamensis (Pringsheim) Peterfi
Syn. *Ochromonas malhamensis* Pringsheim

- 2144 History:** < IAM (2007) < SAG (2000) **Other collection strain no.:** IAM CS-7; UTEX L 1297; SAG 933-1a; ATCC 11532 **Locality:** Malham Tarn/England, Yorkshire/U.K. **Isolator:** Chen, T. Y. **States:** Unialgal; Clonal; Axenic[2012 Mar] **Culture conditions:** O (semi-solid); 20 °C ; 40-50µmol/m²/s; 14 D **Habitat:** Freshwater (Stone) **Characteristics:** Predator **Reference:** 57

PRASINODERMA : Prasinophyceae

Prasinoderma coloniale Hasegawa et Chinara

- 2582 History:** < RCC (2009) **Other collection strain no.:** RCC 916 **Locality:** Marquesas islands (2004-10-29) **Isolator:** Vaulot, Daniel; Marie, D.; Le Gall, F. (Re-isolation) **Identified by:** Confirmed at RCC by DNA sequencing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 22-32µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** Biosope 34B2 FL2-5

PROCHLOROCOCCUS : Cyanophyceae

Prochlorococcus marinus Chisholm, Frankel, Goericke, Olson, Palenik, Waterbury, West-Johnsrud et Zettler

- 2086 History:** < Kawachi, Masanobu < CCMP **Other collection strain no.:** CCMP 1377 **Locality:** North Atlantic (Sargasso Sea) (1988-05-**) **Isolator:** Frankel, S.; West-Johnsrud, L. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** PRO-99; 20°C; 4-10µmol/m²/s; 3 M **Habitat:** Marine (Seawater)
- 2087 History:** < Kawachi, Masanobu < CCMP **Other collection strain no.:** CCMP 1986 **Locality:** East Mediterranean Sea **Isolator:** Vaulot, D. **Identified by:** Vaulot, D. (1991-03-01) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** PRO-99; 20°C; 18-23µmol/m²/s; 3 M **Habitat:** Marine (Seawater)

PROROCENTRUM : Dinophyceae

Prorocentrum dentatum Stein

- 682 History:** < KAGAWA < Yoshimatsu, Sadaaki **Locality:** Hiuchi-nada/Japan (1979-12-13) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Non-axenic

Culture conditions: ESM; 20 °C ; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Remarks:** Fragile species to transportation stresses

- 900** **History:** < Yumoto, Kosei **Locality:** off Irago Cape/Aichi/Japan (2000-07-01) **Isolator:** Yumoto, Kosei **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** KC37-PD **Remarks:** Fragile species to transportation stresses
- 2010** **History:** < Kawachi, Masanobu **Locality:** East China Sea (2006-06-**) **Isolator:** Kawachi, Masanobu **Identified by:** Kawachi, Masanobu (2006-06-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20 °C ; 10-15µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** SY06-6 **Remarks:** Fragile species to transportation stresses
- 2011** **History:** < Kawachi, Masanobu **Locality:** East China Sea (2006-06-**) **Isolator:** Kawachi, Masanobu **Identified by:** Kawachi, Masanobu (2006-06-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20 °C ; 10-15µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** SY06-8 **Remarks:** Fragile species to transportation stresses
- 2013** **History:** < Kawachi, Masanobu **Locality:** East China Sea (2006-06-**) **Isolator:** Kawachi, Masanobu **Identified by:** Kawachi, Masanobu (2006-06-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20 °C ; 10-15µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** SY06-10 **Remarks:** Fragile species to transportation stresses
- 2014** **History:** < Kawachi, Masanobu **Locality:** East China Sea (2006-06-**) **Isolator:** Kawachi, Masanobu **Identified by:** Kawachi, Masanobu (2006-06-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mIMR; 20 °C ; 10-15µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** SY06-11 **Remarks:** Fragile species to transportation stresses

Prorocentrum gracile Schütt

- 315** **History:** < KAGAWA **Locality:** Harima-nada/Japan **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** ESM; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Other strain no.:** 80 **Remarks:** Fragile species to transportation stresses

Prorocentrum lima (Ehrenberg) Dodge

- 617** **History:** < Murata, Michio **Locality:** Motobu/Okinawa/Japan (1993-06-06) **Isolator:** Kobayashi, Hidetaka **Identified by:** Fukuyo, Yasuo **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; ESM; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Plant) **Characteristics:** Toxic **Other strain no.:** PL-03 **Remarks:** Toxic; Fragile species to transportation stresses

Prorocentrum mexicanum Osorio-Tafall

- 618** **History:** < Murata, Michio **Locality:** Motobu/Okinawa/Japan (1993-06-06) **Isolator:** Kobayashi, Hidetaka **Identified by:** Fukuyo, Yasuo **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Plant) **Other strain no.:** PX-01 **Remarks:** Fragile species to transportation stresses
- 1967** **History:** < TKB **Locality:** Motobu/Okinawa/Japan (2005-01-22) **Isolator:** Yamaguchi, Haruyo **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** IMK; 20°C; 10-15µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-328 **Remarks:** Fragile species to transportation stresses

Prorocentrum micans Ehrenberg

- 12** **History:** < Yamochi, Susumu **Locality:** Osaka Bay/Osaka/Japan (1981-07-**) **Isolator:** Yamochi, Susumu **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** ESM; 20 °C ; 32-40µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Gene data:** CO1 (AB000134); CO1 (AB000133); psbA (AB025585) **Other strain no.:** OPm **References:** 143, 261, 262, 592,

- 1035, 1115, 1243 **Remarks:** Fragile species to transportation stresses
- 218 History:** < KAGAWA **Locality:** Yashima Bay/Kagawa/Japan (1978-08-05) **Isolator:** Yuki, Katsuhisa **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; 20 °C ; 32-40µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Other strain no.:** KGW-13-7 **Remarks:** Fragile species to transportation stresses
- 316 History:** < Sawaguchi, Tomohiro **Locality:** Matoya Bay/Mie/Japan (1984-09-01) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; ESM; 20°C; 32-40µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** MB-D-4 **Remarks:** Fragile species to transportation stresses
- 601 History:** < Honjo, Tsuneo **Locality:** Mikawa Bay/Aichi/Japan **Isolator:** Toriumi, Saburo **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Remarks:** Fragile species to transportation stresses
- 608 History:** < Iwasaki, Hideo **Locality:** Ise Bay/Mie/Japan (1978-06-**) **Isolator:** Iwasaki, Hideo **Identified by:** Steidnger, K. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Remarks:** Fragile species to transportation stresses
- 1406 History:** < TKB **Locality:** Saroma/Hokkaido/Japan (2003-10-**) **Isolator:** Chikuni, Tomoko **Identified by:** Chikuni, Tomoko **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** TKB-138 (TC01) **Remarks:** Fragile species to transportation stresses

Prorocentrum minimum (Pavillard) Schiller

- 237 History:** < Watanabe, Makoto M. **Locality:** Osaka Bay/Osaka/Japan (1982-08-03) **Isolator:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** ESM; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** OPmin **Reference:** 115 **Remarks:** Fragile species to transportation stresses
- 238 History:** < KAGAWA **Locality:** Harima-Nada/Japan (1983-04-22) **Isolator:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; ESM; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Other strain no.:** KGW-14-2-5 **Remarks:** Unstable; Fragile species to transportation stresses

PROTOCERATIUM : Dinophyceae

Protoceratium reticulatum (Claparède et Lachmann) Butschli

- 319 History:** < KAGAWA **Locality:** Naoshima Isl./Kagawa/Japan (1982-07-30) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** ESM; MNK; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Other strain no.:** KGW-62 **Reference:** 1115 **Remarks:** Poor growth; Fragile species to transportation stresses

PROTODESMUS : Chlorophyceae

Protodesmus globulifer Nakahara, Tsubota et Handa

- 1703 History:** < Nakanara, Miho **Locality:** Higashihiroshima/Hiroshima/Japan (1997-03-**) **Identified by:** Nakahara, Miho (2004-11-**) **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20 °C ; 4-10µmol/m²/s; 6 M (25 °C ; 70-80µmol/m²/s) **Habitat:** Brackish water (Paramecium in a reservoir) **Characteristics:** Symbiotic; Authentic strain **Gene data:** 18S rRNA (AB212094) **Other strain no.:** HP1-13-26

PROTOTHECA : Trebouxiophyceae

Prototrichia portoricensis Cifferi, Ashford et Dalmau var. *cifferii* (Negroni et Blaistin) Cifferi, Ashford et Dalmau

- 2182 History:** < IAM (2007) < IFO < JCM **Other collection strain no.:** IAM C-177; IFO 6994; JCM 9346 **Formerly identified as:** *Prototheca cifferrii* Negroni et Blaisten **States:** Unialgal; Clonal; Axenic **Culture conditions:** Tre (agar); 20°C; 8-15µmol/m²/s; 3 M

***PRYMNESIUM* :** Prymnesiophyceae

Prymnesium calathiferum Chang et Ryan

- 1330 History:** < TKB **Locality:** Awase/Okinawa/Japan (2003-05-**) **Isolator:** Yoshida, Masaki **Identified by:** Yoshida, Masaki (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 22-32µmol/m²/s; 14 D **Habitat:** Marine (Sand) **Characteristics:** Benthic **Other strain no.:** TKB-062 (ym-07)

Prymnesium parvum Carter

- 1017 History:** < Moriya, Mayumi **Locality:** Jogashima/Kanagawa/Japan (1997-04-**) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 15-22µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Other strain no.:** #22 **References:** 142, 283

- 1018 History:** < Moriya, Mayumi **Locality:** Hirara, Shimajiri/Okinawa/Japan (2002-03-17) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 15-22µmol/m²/s; 1 M **Habitat:** Brackish water (Water) **Other strain no.:** M-25

- 1812 History:** < TKB **Locality:** Yufu Isl./Okinawa/Japan (2004-12-24) **Isolator:** Chikuni, Tomoko **Identified by:** Chikuni, Tomoko (2005-**-**) **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Salt water **Other strain no.:** TKB-251

- 2350 History:** < Kawachi, Masanobu **Locality:** Hachijo Isl., Yaene Harbor/Tokyo/Japan (2003-01-15) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 22°C; 10-18µmol/m²/s; 14-20 D **Habitat:** Marine (Seawater) **Characteristics:** Toxic; Epiphytic **Other strain no.:** MH 54 **Remarks:** Toxic

***Prymnesium* sp.**

- 1397 History:** < TKB **Locality:** Ishigaki Harbor/Okinawa/Japan (2003-12-25) **Isolator:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 40-50µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** TKB-084 (nrc060)

***PSEUDANABAENA* :** Cyanophyceae

Pseudanabaena galeata Böcher

- 512 History:** < Yamada, Naoki **Locality:** Nagoya Castle/Aichi/Japan (1981-11-01) **Isolator:** Yamada, Naoki **Identified by:** Yamada, Naoki; Homma, Takamitsu (Reidentify) **Formerly identified as:** *Phormidium tenue* (C.Agardh ex Gomont) *Anagnostidis et Komárek* **States:** Unialgal; Non-clonal; Axenic **Culture conditions:** CT; 20°C; 4-10µmol/m²/s; 20 D (20°C; 15-27µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Offensive taste and odor **Gene data:** 16S rRNA (AB042838) **Other strain no.:** PM-81A **References:** 221, 267, 383, 468, 469, 567, 621, 625, 796, 797, 1206, 1207, 1274 **Remarks:** Cryopreserved

***Pseudanabaena* sp.**

- 611 Locality:** Lake Biwa/Shiga/Japan **Identified by:** Watanabe, Makoto M.; Homma, Takamitsu (Reidentify) **Formerly identified as:** *Phormidium tenue* (C.Agardh ex Gomont) *Anagnostidis et Komárek* **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CT; 25°C; 100-120µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Gene data:** 16S rRNA (AB042842) **Other strain no.:** Bpt **References:** 151, 1077 **Remarks:** Cryopreserved

***PSEUDENDOCOLONIUM* :** Ulvophyceae

***Pseudendoclonium* sp.**

- 2501 History:** < Inouye, Isao **Locality:** Hanamuro River/Ibaraki/Japan (2006-09-28) **Isolator:** Chikuni, Tomoko **Identified by:** Chikuni, Tomoko (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15µmol/m²/s; 2 M **Habitat:** Freshwater (Water; Sediment) **Characteristics:** Benthic **Other strain no.:** TKB-354

PSEUDOCARTERIA : Chlorophyceae

Pseudocarteria mucosa (Korshikov) Ettl

- 522 History:** < Suda, Shoichiro **Locality:** Izumi/Miyagi/Japan (1985-08-02) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Homothallic **Gene data:** atpB (AB084324); psaB (AB084364); rbcL (AB084335) **Other strain no.:** M-2 **References:** 567, 740, 989
- 523 History:** < Suda, Shoichiro **Locality:** Higashiyata River/Ibaraki/Japan (1983-07-02) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Homothallic **Other strain no.:** USI-8 **References:** 567, 986, 989
- 524 History:** < Suda, Shoichiro **Locality:** Izumi/Miyagi/Japan (1985-08-02) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Homothallic **Other strain no.:** M-4 **References:** 567, 989

PSEUDOCHATTONELLA : Dictyochophyceae

Pseudochattonella verruculosa (Hara et Chihara) Tanabe-Hosoi, Honda, Fukaya, Inagaki et Sako
Syn. *Chattonella verruculosa* Hara et Chihara; *Verrucophora verruculosa* (Hara et Chihara) Eikrem

- 670 History:** < KAGAWA < Yoshimatsu, Sadaaki **Locality:** Harima-nada/Japan (1987-07-16) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Gene data:** 18S rRNA (AB217629) **References:** 37, 74, 149, 218, 245 **Remarks:** Fragile species to transportation stresses
- 850 History:** < Sawaguchi, Tomohiro **Locality:** Shodo Isl./Kagawa/Japan (1989-01-**) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Hara, Yoshiaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; ESM; 15°C; 15-22µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Remarks:** Fragile species to transportation stresses

PSEUDOKIRCHNERIELLA : Chlorophyceae

Pseudokirchneriella subcapitata (Korshikov) Hindák

Syn. *Ankistrodesmus subcapitata* Korshikov; *Kirchneriella subcapitata* Korshikov; *Raphidocelis subcapitata* (Korshikov) Nygaard

- 35 History:** < Yagi, Osami **Locality:** Nitelva River/Norway **Isolator:** Skulberg, O. M. **Formerly identified as:** *Selenastrum capricornutum* (Printz) Nygaard **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater **Characteristics:** AGP **Other strain no.:** P-26 **References:** 170, 220, 347, 348, 355, 360, 381, 445, 567, 596, 620, 625, 630, 680, 685, 801, 814, 992, 1031, 1092, 1199, 1200, 1202, 1222, 1233 **Remarks:** Cryoperserved

PSEUDONITZSCHIA : Bacillariophyceae

Pseudonitzschia sp.

- 1383 History:** < TKB **Locality:** Hachijo Isl./Tokyo/Japan (2002-12-13) **Isolator:** Yoshida, Masaki **Identified by:** Yoshida, Masaki (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; mIMR; 15°C; 10-18µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain**

no.: TKB-101 (ym-09) **Remarks:** Poor growth

PSEUDOPEDINELLA : Dictyochophyceae

Pseudopedinella pyriformis Carter

- 1381 **History:** < TKB **Locality:** Edogawa-ku/Tokyo/Japan (2004-10-28) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 15-22µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-191 (nak80)
- 1810 **History:** < TKB **Locality:** East China Sea/Japan (2004-07-28) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi (2005-**-**) **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** ESM; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-221

PSEUDOPLEUROCOCCUS : Chlorophyceae

Pseudopleurococcus printzii Vischer var. *longissimus* S.Watanabe

- 159 **History:** < Watanabe, Shin **Locality:** Kyoto/Japan (1975-03-07) **Isolator:** Watanabe, Shin **Identified by:** Watanabe, Shin **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (Plant (Bark of *Ulmus parviflora*)) **Characteristics:** Authentic strain **Other strain no.:** KUC6-2 **References:** 567, 1186 **Remarks:** Cryopreserved

PSEUDOSCOURFIELDIA : Prasinophyceae

Pseudoscourfieldia marina (Throndsen) Manton

- 1419 **History:** < TKB **Locality:** East China Sea/Japan (2004-07-28) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Gene data:** psbB (AB561053); psbC (AB561061) **Other strain no.:** TKB-144 (nak33)
- 1420 **History:** < TKB **Locality:** Motobu, Sesoko/Okinawa/Japan (2004-11-08) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** MNK; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-212 (nak99)

PSEUDOTREBOUXIA : Trebouxiophyceae

Pseudotrebouxia corticola Archibald

- 2183 **History:** < IAM (2007) < BIU (UTEX; 1965) **Other collection strain no.:** IAM C-194; ASIB IB326; UTEX 909 **Isolator:** Ahmadjian, V. **Identified by:** Ahmadjian, V. **Formerly identified as:** *Trebouxia arboricola* Puymaly **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Reference:** 18

PTEROMONAS : Chlorophyceae

Pteromonas aculeata Lemmermann

- 738 **History:** < Nozaki, Hisayoshi **Locality:** Shinobazu-no-ike Pond/Tokyo/Japan (1996-10-17) **Isolator:** Tanaka, Shin-ichiro **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 15-27µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** 970603-PtAcl **Reference:** 1061
- 860 **History:** < Nozaki, Hisayoshi **Locality:** Darstein/Germany (1997-07-31) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Ditch water) **Other strain no.:** 970801-2

Pteromonas angulosa (Carter) Lemmermann

739 History: < Nozaki, Hisayoshi **Locality:** Shinobazu-no-ike Pond/Tokyo/Japan (1996-11-13) **Isolator:** Tanaka, Shin-ichiro **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic[2012 Nov] **Culture conditions:** MG; 20°C; 15-27µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** 970603-PtAng **Reference:** 1061

861 History: < Nozaki, Hisayoshi **Locality:** Germany **Identified by:** Knieritz, L. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-22µmol/m²/s; 2 M **Gene data:** atpB (AB014038); psaB (B084371); psaB (B084372); rbcL (AJ001887) **Other strain no.:** KR 91/2 **References:** 189, 738, 740

862 History: < Nozaki, Hisayoshi **Locality:** Germany **Identified by:** Krienitz, L. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-22µmol/m²/s; 2 M **Gene data:** rbcL (AJ001888) **Other strain no.:** KR 91/3 **Reference:** 189

Pteromonas multipyrenoidea Iyenger

740 History: < Nozaki, Hisayoshi **Locality:** Shinobazu-no-ike Pond/Tokyo/Japan (1996-11-13) **Isolator:** Tanaka, Shin-ichiro **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic[2012 Nov] **Culture conditions:** MG; 20°C; 15-27µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** 970603-PtMul **Reference:** 1061

PTEROSPERMA : Prasinophyceae

Pterosperma cristatum Schiller

221 History: < Suda, Shoichiro **Locality:** Harima-Nada/Japan (1983-02-**) **Isolator:** Suda, Shoichiro **Identified by:** Inouye, Isao **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; ESM; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Sediment) **Characteristics:** Red tide **Other strain no.:** H-88-1 **References:** 490, 1115 **Remarks:** Fragile species to transportation stresses

626 History: < Sawaguchi, Tomohiro **Locality:** Seto Inland Sea/Kagawa/Japan (1989-02-14) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Inouye, Isao **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 20-30µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Gene data:** psbB (AB561056); psbC (AB561064) **Other strain no.:** 89KGW-1 **Remarks:** Fragile species to transportation stresses

936 History: < Yoshii, Yukie **Locality:** Oku-Matsushima/Miyagi/Japan (1998-03-**) **Isolator:** Yoshii, Yukie **Identified by:** Inouye, Isao **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** Pt **References:** 392, 1260 **Remarks:** Fragile species to transportation stresses

PYRAMIMONAS : Prasinophyceae

Pyramimonas aff. *amyliifera* Conrad

251 History: < KAGAWA **Locality:** Yashima Bay/Kagawa/Japan (1982-10-14) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; ESM; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide **Other strain no.:** KGW-64-3 **References:** 138, 1115

320 History: < Suda, Shoichiro **Locality:** Onagawa Bay/Miyagi/Japan (1984-08-28) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Other strain no.:** 8280G47-5

Pyramimonas cordata McFadden

1421 History: < TKB **Locality:** Chiba Harbor/Chiba/Japan (2004-07-**) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-130 (nak24)

1422 History: < TKB **Locality:** Amami Isl./Kagoshima/Japan (2004-10-14) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:**

TKB-203 (nak92)

- 1423 **History:** < TKB **Locality:** Takahama Canal/Tokyo/Japan (2004-12-03) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-218 (nak104)

Pyramimonas dissomata Butcher ex McFadden, Hill et Wetherbee

- 1819 **History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2005-03-30) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Other strain no.:** TKB-226

Pyramimonas grossii Parke

- 1424 **History:** < TKB **Locality:** East China Sea/Japan (2004-07-31) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-141 (nak30)

- 1425 **History:** < TKB **Locality:** Amami Isl./Kagoshima/Japan (2004-10-14) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 15-22µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-202 (nak91)

- 1820 **History:** < TKB **Locality:** Onahama Harbor/Fukushima/Japan (2004-07-07) **Isolator:** Chikuni, Tomoko **Identified by:** Chikuni, Tomoko (2005-**-**) **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-248

Pyramimonas parkeae Norris et Pearson

- 254 **History:** < Suda, Shoichiro **Locality:** Hachijo Isl./Tokyo/Japan (1984-04-17) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** ESM; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Water) **Characteristics:** Red tide **Other strain no.:** 8-25-2 **References:** 138, 396, 432, 434, 890, 1014

Pyramimonas propulsula Moestrup et Hill

- 1821 **History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2005-03-30) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Other strain no.:** TKB-223

- 1822 **History:** < TKB **Locality:** Kanegahama/Miyazaki/Japan (2005-02-12) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Sand) **Other strain no.:** TKB-246

- 1823 **History:** < TKB **Locality:** Kesennuma Harbor/Miyagi/Japan (2005-08-30) **Isolator:** Chikuni, Tomoko **Identified by:** Nakayama, Takeshi (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-250

Pyramimonas sp.

- 1426 **History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2003-11-**) **Isolator:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** TKB-086 (nrc062)

- 1427 **History:** < TKB **Locality:** East China Sea/Japan (2004-07-28) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** ESM; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-143 (nak32)

PYROBOTRYS : Chlorophyceae

Pyrobotrys squarrosa (Korshikov) Korshikov

Syn. Chlamydotrys squamata Korshikov; Uva squamata (Korshikov) Fott

- 2564 History:** < Nakada, Takashi **Other collection strain no.:** NBRC 107039 **Locality:** Otsuka-minami/Toyama/Japan (2005-09-23) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2009-11-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mAC; 20°C; 32-40 μ mol/m²/s; 1 M **Habitat:** Freshwater (Sediment) **Characteristics:** Mixotrophic; Resting spore forming **Gene data:** 18S rRNA (AB542919); psaB (AB542924); rbcL (AB542927) **Other strain no.:** KrcI905 **Reference:** 611

PYROCYSTIS : Dinophyceae*Pyrocystis lunula* (Schütt) Schütt

- 609 History:** < Nakamura, Hideshi **Locality:** Japan **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** f/2; 20°C; 40-50 μ mol/m²/s; 1 M **Habitat:** Marine **Reference:** 1188 **Remarks:** Fragile species to transportation stresses

RAPHIDIOPHYS : Centrohelea*Raphidiophys contractilis* Kinoshita et al.

- 2498 History:** < Suzaki, Toshinobu **Locality:** Shukkeien Park/Hiroshima/Japan (1995-**-**) **Isolator:** Suzaki, Toshinobu **Identified by:** Suzaki, Toshinobu (1995-**-**) **Culture conditions:** Helio; 20°C; 13-18 μ mol/m²/s; 7-14 D **Habitat:** Brackish water **Other strain no.:** HSR

RAPHIDIOPSIS : Cyanophyceae*Raphidiopsis curvata* F.E. Fritsch et F.Rich

- 932 History:** < Otsuka, Shigeto **Locality:** Shinobazu-no-ike Pond/Tokyo/Japan (2000-07-04) **Isolator:** Otsuka, Shigeto **Identified by:** Otsuka, Shigeto **States:** Unialgal; Clonal; Axenic[2011 Sept] **Culture conditions:** CT; 25 °C; 20-30 μ mol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Cyanobacterial water bloom (aoko) **Other strain no.:** RAP1 **Reference:** 139

Raphidiopsis sp.

- 1729 History:** < Li, Renhui **Locality:** Shinobazu-no-ike Pond, Ueno Park/Tokyo/Japan (1998-10-**) **Isolator:** Li, Renhui **Identified by:** Li, Renhui (1998-10-**) **States:** Unialgal **Culture conditions:** MG; 20 °C ; 12-22 μ mol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko); Resting spore forming **Other strain no.:** Rap J1

RAPHIDONEMA : Trebouxiophyceae*Raphidonema nivale* Lagerheim

- 2290 History:** < IAM (2007) < Holm-Hansen, O. **Other collection strain no.:** IAM C-166 **Locality:** Wright Dry Valley/Antarctica **Isolator:** Holm-Hansen, O. **Identified by:** Confirmed at NIES by DNA sequencing **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15 μ mol/m²/s; 3 M **Habitat:** (Sand) **Gene data:** 18S rRNA (AB488604) **Other strain no.:** Holm-Hansen W-35

RHIZOCHROMULINA : Dictyochophyceae*Rhizochromulina* sp.

- 1382 History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2002-09-**) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** ESM (agar); 20 °C ; 40-50 μ mol/m²/s; 6 M **Habitat:** Marine (Seawater) **Characteristics:** Benthic **Other strain no.:** TKB-042 (nrc029)

RHIZOSOLENIA : Bacillariophyceae

Rhizosolenia sp.

- 2669 History:** < Hagiwara, Tomiji **Locality:** Chiba/Japan (2009-02-09) **Isolator:** Hagiwara, Tomiji **Identified by:** Hagiwara, Tomiji (2009-10-06) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 15°C; 10-18µmol/m²/s; 1 M **Habitat:** Marine (Seawater)

RHODELLA : Rhodellophyceae*Rhodella* sp.

- 1036 History:** < Hatakeyama, Noriko **Locality:** Iriomote Isl./Okinawa/Japan (1990-10-16) **Isolator:** Hatakeyama, Noriko **Identified by:** Hatakeyama-Ishida, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 15-27µmol/m²/s; 2 M **Habitat:** Brackish water (Water) **Reference:** 142 **Remarks:** Cryopreserved
- 1037 History:** < Hatakeyama, Noriko **Locality:** Iriomote Isl./Okinawa/Japan (1990-10-16) **Isolator:** Hatakeyama, Noriko **Identified by:** Hatakeyama-Ishida, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 15-27µmol/m²/s; 2 M **Habitat:** Brackish water (Water) **Remarks:** Cryopreserved
- 1972 History:** < Sato, Mayumi **Locality:** Ishigaki Isl., Urasoko Bay/Okinawa/Japan (2004-02-19) **Isolator:** Sato, Mayumi **Identified by:** Yokoyama, Akiko (2007-02-20) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 15-22µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Other strain no.:** M-182

RHODOMONAS : Cryptophyceae*Rhodomonas atrorosea* Butcher ex Hill et Wetherbee

Syn. Chroomonas atrorosea Butcher

- 699 History:** < Erata, Mayumi < Hara, Yoshiaki < CCAP **Other collection strain no.:** CCAP 978/6a **Locality:** Isle of Wight/U.K. **Identified by:** Butcher, R. W. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Authentic strain **Gene data:** 18S rRNA (AB240957) **Other strain no.:** M07 **References:** 85, 142

Rhodomonas baltica Karsten

Syn. Cryptomonas pseudobaltica Butcher

- 700 History:** < Erata, Mayumi < Hara, Yoshiaki < CCAP **Other collection strain no.:** CCAP 979/9 **Locality:** Channel Isls./U.K. (1961-**-**) **Identified by:** Butcher, R. W. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15 °C ; 20-30µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Authentic strain **Gene data:** 18S rRNA (AB241128) **Other strain no.:** M06 **Reference:** 85

Rhodomonas chrysoidea Butcher ex Hill et Wetherbee

Syn. Cryptomonas chrysoidea Butcher

- 701 History:** < Erata, Mayumi < Hara, Yoshiaki < CCAP **Other collection strain no.:** CCAP 979/8 **Locality:** River Colne/Essex/U.K. (1953-**-**) **Identified by:** Butcher, R. W. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 20-30µmol/m²/s; 1 M **Habitat:** Brackish water **Characteristics:** Authentic strain **Gene data:** 18S rRNA (AB240958); Nuclear actin-1 (AB126020); Nuclear actin-2 (AB126021); Nucleomorph actin (AB126026) **Other strain no.:** M03 **Reference:** 85

Rhodomonas duplex Hill et Wetherbee

- 765 History:** < Erata, Mayumi **Locality:** Yaga/Okinawa/Japan (1986-**-**) **Isolator:** Inouye, Isao **Identified by:** Erata, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine **Gene data:** 18S rRNA (AB240960); Nuclear actin (AB126022); Nucleomorph actin (AB126027) **Other strain no.:** M14

Rhodomonas falcata Butcher ex Hill et Wetherbee

Syn. Chroomonas falcata Butcher

- 702 History:** < Erata, Mayumi < Hara, Yoshiaki < CCAP **Other collection strain no.:** CCAP 978/5a

Locality: Aberystwyth/Wales/U.K. (1956-**-**) **Identified by:** Butcher, R. W. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Authentic strain **Gene data:** 18S rRNA (AB240959) **Other strain no.:** M10 **Reference:** 85

Rhodomonas salina (Wislouch) Hill et Wetherbee

- 1006 **History:** < Moriya, Mayumi **Locality:** Hirara, Shimajiri/Okinawa/Japan (2002-03-17) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** M-40
- 1375 **History:** < TKB **Locality:** Tokyo Bay/Kanagawa/Japan (2003-09-**) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2 + NH₄Cl; 20°C; 15-22µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-122 (AK-15)

Rhodomonas sp.

- 1005 **History:** < Moriya, Mayumi **Locality:** Shinjo Beach/Okinawa/Japan (2002-03-17) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **Formerly identified as:** Rhodomonas chrysoidea Butcher ex Hill et Wetherbee **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 15°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** M-23
- 1730 **History:** < Inouye, Isao < CCMP 768 **Other collection strain no.:** CCMP 768 **Locality:** North Island/New Zealand (1983-01-**) **Isolator:** Chang, F. **Identified by:** Hill, D. R. A. (1984-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 15-22µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Prey for Kathablepharis sp. (NIES-1731) **Gene data:** fbaC1mRNA (AY699824) **Reference:** 89
- 2332 **History:** < Hatakeyama, Noriko **Locality:** Shizugawa Bay/Miyagi/Japan (1991-11-**) **Isolator:** Hatakeyama, Noriko **Identified by:** Hatakeyama, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; WESM; 20°C; 15-27µmol/m²/s; 1 M **Habitat:** Marine (Sediment) **Other strain no.:** Shiz-5

ROYA : Charophyceae

Roya anglica G.S. West

- 2291 **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-592 (=C-332); UTEX 934 **Locality:** North Carolina/U.S.A. **Isolator:** Fox, E. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 8-15µmol/m²/s; 3 M **Characteristics:** Hydrogen evolution **Reference:** 38

RUBRATELLA : Foraminiferae

Rubratella sp.

- 1445 **History:** < TKB **Locality:** Hachijo Isl./Tokyo/Japan (2002-12-13) **Isolator:** Yoshida, Masaki **Identified by:** Tsuchiya, Masashi (2006-**-**) **States:** Mixed; Clonal; Non-axenic **Culture conditions:** mIMR (Pseudonitzschia sp. NIES-1383 should be cultured in advance as a prey); 15°C; 10-18µmol/m²/s; 2 M **Habitat:** Marine (Sand) **Characteristics:** Heterotrophic; Benthic **Other strain no.:** TKB-100 (ym-08)

RUSALKA : Chlorophyceae

Rusalka fusiformis (Matvienko) Nakada
Syn. *Chlorogonium fusiforme* Matvienko

- 123 **History:** < IAM (1983) **Other collection strain no.:** IAM C-349 (=C-569) **Locality:** Lake Shinsen-numa/Hokkaido/Japan (1964-07-30) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu; Nozaki, Hisayoshi; Nakada, Takashi (Reidentify) **Formerly identified as:**

Chlorogonium metamorphum Skuja (in IAM) **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 20°C; 4-10µmol/m²/s; 2 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater **Characteristics:** Homothallic; Authentic strain; Type specimen (NIES-50007, Epitype) **Gene data:** atpB (AB084329); psaB (AB084370); rbcL (AB010242) **Other strain no.:** MKF-14 **References:** 235, 567, 610, 711, 737, 740

SALPINGOECA : Choanoflagellatea

Salpingoeca infusionum Kent

- 1442 History:** < TKB **Locality:** Tokyo Bay/Kanagawa/Japan (2003-05-**) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** SUY 1/10 + Wheat; 15 °C ; 0µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Characteristics:** Phagotrophic **Other strain no.:** TKB-117 (nak13)

SANDONA : Sarcomonadea

Sandona aestiva Howe, Bass, Vickerman, Chao et Cavalier-Smith

- 2419 History:** < Howe, Alexis T. **Locality:** Wytham Wood/U.K. (2006-**-**) **Isolator:** Howe, Alexis T. **Identified by:** Howe, Alexis T. (2006-**-**) **Culture conditions:** AF-6 + Wheat; 20 °C; 0µmol/m²/s; 2-3 M **Habitat:** Terrestrial (Soil) **Characteristics:** Heterotrophic; Authentic strain; Resting spore forming **Other strain no.:** WA81 **Reference:** 225

Sandona dimutans Howe, Bass, Vickerman, Chao et Cavalier-Smith

- 2421 History:** < Howe, Alexis T. **Locality:** U.K. (2006-**-**) **Isolator:** Vickerman, Keith **Identified by:** Vickerman, Keith (2006-**-**) **Culture conditions:** AF-6 + Wheat; 20 °C; 0µmol/m²/s; 2-3 M **Habitat:** Terrestrial (Plant (Piece of moss)) **Characteristics:** Heterotrophic; Authentic strain; Resting spore forming **Other strain no.:** G11 **Reference:** 225

Sandona disimilis Howe, Bass, Vickerman, Chao et Cavalier-Smith

- 2422 History:** < Howe, Alexis T. **Locality:** Wytham Wood/U.K. (2006-**-**) **Isolator:** Howe, Alexis T. **Identified by:** Howe, Alexis T. (2006-**-**) **Culture conditions:** AF-6 + Wheat; 20 °C; 0µmol/m²/s; 2-3 M **Habitat:** Terrestrial (Soil) **Characteristics:** Heterotrophic; Authentic strain; Resting spore forming **Other strain no.:** W4 **Reference:** 225

Sandona erratica Howe, Bass, Vickerman, Chao et Cavalier-Smith

- 2508 History:** < Howe, Alexis T. **Locality:** U.K. (2006-**-**) **Isolator:** Howe, Alexis T. **Identified by:** Howe, Alexis T. (2006-**-**) **Culture conditions:** AF-6 + Wheat; 20 °C; 0µmol/m²/s; 2-3 M **Habitat:** Terrestrial (Plant (Ivy leaf)) **Characteristics:** Heterotrophic; Authentic strain; Resting spore forming **Other strain no.:** IVY16

Sandona pentamutans Howe, Bass, Vickerman, Chao et Cavalier-Smith

- 2423 History:** < Howe, Alexis T. **Locality:** Wytham Wood/U.K. (2006-**-**) **Isolator:** Howe, Alexis T. **Identified by:** Howe, Alexis T. (2006-**-**) **Culture conditions:** AF-6 + Wheat; 20 °C; 0µmol/m²/s; 2-3 M **Habitat:** Terrestrial (Soil) **Characteristics:** Heterotrophic; Authentic strain; Resting spore forming **Other strain no.:** WA60a **Reference:** 225

Sandona similis Howe, Bass, Vickerman, Chao et Cavalier-Smith

- 2424 History:** < Howe, Alexis T. **Locality:** Wytham Wood/U.K. (2006-**-**) **Isolator:** Howe, Alexis T. **Identified by:** Howe, Alexis T. (2006-**-**) **Culture conditions:** AF-6 + Wheat; 20 °C; 0µmol/m²/s; 2-3 M **Habitat:** Terrestrial (Soil) **Characteristics:** Heterotrophic; Authentic strain; Resting spore forming **Other strain no.:** WA57 **Reference:** 225

Sandona tetramutans Howe, Bass, Vickerman, Chao et Cavalier-Smith

- 2425 History:** < Howe, Alexis T. **Locality:** Wytham Wood/U.K. (2006-**-**) **Isolator:** Howe, Alexis T. **Identified by:** Howe, Alexis T. (2006-**-**) **Culture conditions:** AF-6 + Wheat; 20 °C; 0µmol/m²/s; 2-3 M **Habitat:** Terrestrial (Soil) **Characteristics:** Heterotrophic; Authentic strain; Resting spore forming **Other strain no.:** WA46a **Reference:** 225

Sandona tetrasimilis Howe, Bass, Vickerman, Chao et Cavalier-Smith

- 2426 **History:** < Howe, Alexis T. **Locality:** Wytham Wood/U.K. (2006-**-**) **Isolator:** Howe, Alexis T. **Identified by:** Howe, Alexis T. (2006-**-**) **Culture conditions:** AF-6 + Wheat; 20°C; 0µmol/m²/s; 2-3 M **Habitat:** Terrestrial (Soil) **Characteristics:** Heterotrophic; Authentic strain; Resting spore forming **Other strain no.:** WA36 **Reference:** 225

Sandona ubiquita Howe, Bass, Vickerman, Chao et Cavalier-Smith

- 2427 **History:** < Howe, Alexis T. **Locality:** Wytham Wood/U.K. (2006-**-**) **Isolator:** Howe, Alexis T. **Identified by:** Howe, Alexis T. (2006-**-**) **Culture conditions:** AF-6 + Wheat; 20°C; 0µmol/m²/s; 2-3 M **Habitat:** Terrestrial (Soil) **Characteristics:** Heterotrophic; Authentic strain; Resting spore forming **Other strain no.:** W36 **Reference:** 225

- 2428 **History:** < Howe, Alexis T. **Locality:** Wytham Wood/U.K. (2006-**-**) **Isolator:** Howe, Alexis T. **Identified by:** Howe, Alexis T. (2006-**-**) **Culture conditions:** URO-H + Wheat; 20°C; 0µmol/m²/s; 2-3 M **Habitat:** Terrestrial (Soil) **Characteristics:** Heterotrophic; Resting spore forming; genetic variant a **Other strain no.:** W73 **Reference:** 225

- 2429 **History:** < Howe, Alexis T. **Locality:** Wytham Wood/U.K. (2006-**-**) **Isolator:** Howe, Alexis T. **Identified by:** Howe, Alexis T. (2006-**-**) **Culture conditions:** AF-6 + Wheat; 20°C; 0µmol/m²/s; 2-3 M **Habitat:** Terrestrial (Soil) **Characteristics:** Heterotrophic; Resting spore forming; genetic variant b **Other strain no.:** W68 **Reference:** 225

- 2430 **History:** < Howe, Alexis T. **Locality:** Wytham Wood/U.K. (2006-**-**) **Isolator:** Howe, Alexis T. **Identified by:** Howe, Alexis T. (2006-**-**) **Culture conditions:** AF-6 + Wheat; 20°C; 0µmol/m²/s; 2-3 M **Habitat:** Terrestrial (Soil) **Characteristics:** Heterotrophic; Resting spore forming; genetic variant c **Other strain no.:** B13 **Reference:** 225

SCENEDESMUS : Chlorophyceae

Scenedesmus acuminatus (Lageraeim) Chodot var. *tetraedesmoides* G.M. Smith

- 92 **History:** < Hiwatari, Takehiko **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-08-26) **Isolator:** Hiwatari, Takehiko **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; 20°C; 8-15µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Other strain no.:** K-S-1 **References:** 567, 1187 **Remarks:** Cryopreserved

Scenedesmus acutus Meyen

- 94 **History:** < Yuri, Akira **Locality:** Kosaka River/Akita/Japan (1983-04-19) **Isolator:** Yuri, Akira **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (River water) **Other strain no.:** 2-2-3-1 **References:** 567, 1134, 1187 **Remarks:** Cryopreserved

- 95 **History:** < Suda, Shoichiro **Locality:** Tsukuba/Ibaraki/Japan (1983-05-20) **Isolator:** Suda, Shoichiro **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Pond water) **Other strain no.:** Aq-S-1 **References:** 207, 567, 1159 **Remarks:** Cryopreserved

- 120 **History:** < Suda, Shoichiro **Locality:** inside NIES/Ibaraki/Japan (1983-05-20) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Pond water) **Other strain no.:** Aq-S-2 **References:** 567, 1159 **Remarks:** Cryopreserved

- 2269 **History:** < IAM (2007) < Watanabe, Atsushi **Other collection strain no.:** IAM C-64 **Isolator:** Watanabe, Atsushi **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Axenic [2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M

- 2270 **History:** < IAM (2007) < Tsuzuki, Mikio (1988) < Avramova, S. T. (1982) < Semenenko, V. (?) **Other collection strain no.:** IAM C-537 **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M

Scenedesmus basiliensis Chodat

2271 **History:** < IAM (2007) < Watanabe, Atsushi **Other collection strain no.:** IAM C-65 **Isolator:** Watanabe, Atsushi **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M

2272 **History:** < IAM (2007) < Watanabe, Atsushi **Other collection strain no.:** IAM C-66 **Isolator:** Watanabe, Atsushi **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M

Scenedesmus bijuga (Turpin) Lagerheim

2273 **History:** < IAM (2007) **Other collection strain no.:** IAM C-347 **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **References:** 628, 864

Scenedesmus chlorelloides Chodat

2274 **History:** < IAM (2007) < Watanabe, Atsushi **Other collection strain no.:** IAM C-67 **Isolator:** Watanabe, Atsushi **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **References:** 628, 864

Scenedesmus coelastroides (Bohlin) Schmidle

2275 **History:** < IAM (2007) < Watanabe, Atsushi **Other collection strain no.:** IAM C-68 **Isolator:** Watanabe, Atsushi **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M

Scenedesmus costulatus Chodat

2276 **History:** < IAM (2007) < Watanabe, Atsushi **Other collection strain no.:** IAM C-69 **Isolator:** Watanabe, Atsushi **Identified by:** Fukushima, Hiroshi **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M

Scenedesmus dimorphus (Turpin) Kützing

93 **History:** < Kasai, Fumie **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-07-22) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** F-18-1 **References:** 567, 1159

119 **History:** < Hiwatari, Takehiko **Locality:** Ozegahara/Gunma/Japan (1983-08-29) **Isolator:** Suda, Shoichiro **Identified by:** Hiwatari, Takehiko **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 8-15µmol/m²/s; 2 M **Habitat:** Freshwater (Bog water) **Other strain no.:** OZ-29 **Reference:** 567 **Remarks:** Cryopreserved

Scenedesmus obliquus (Turpin) Kützing

2279 **History:** < IAM (2007) < UTEX (1989-07-04) **Other collection strain no.:** IAM C-521 (=C-72); CCAP 276/6A; SAG 276-6; UTEX 393 **Isolator:** Gaffron, H. **States:** Unialgal; Clonal; Axenic[2012 Mar] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Other strain no.:** Gaffron D-3 **References:** 38, 628, 863, 864

2280 **History:** < IAM (2007) < Tsuzuki, Mikio (1988) < Oh-Hama, Takeshi < Senger, H. (1965) < Bishop, N. < Gaffron, H. **Other collection strain no.:** IAM C-538 **Isolator:** Gaffron, H. **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Other strain no.:** Gaffron D-3 **References:** 447, 560, 765, 766, 767, 768, 1101

SCHIZOCLADIA : Schizocladophyceae

Schizocladia ischiensis Henry, Okuda et Kawai

1044 **History:** < Kawai, Hiroshi **Locality:** Ischia Isl./Italy (1987-10-21) **Isolator:** Henry, Eric C. **Identified by:** Kawai, Hiroshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 4-10µmol/m²/s; 3 M **Habitat:** Marine (Plant) **Characteristics:** Authentic strain **Gene data:** 18S rRNA (AB085614); rbcL (AB085615) **Other strain no.:** KU-333 **References:** 137, 380

SCHROEDERIA : Chlorophyceae

Schroederia setigera (Schröder) Lemmermann

- 246 History:** < Kasai, Fumie **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-08-23) **Isolator:** Kasai, Fumie **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 25°C; 100-120µmol/m²/s; 20 D **Habitat:** Freshwater (Lake water) **Other strain no.:** F47-3 **Reference:** 567

SCRIPPSIELLA : Dinophyceae*Scrippsiella* sp.

- 2016 History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-05-12) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW26 **Remarks:** Fragile species to transportation stresses
- 2017 History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-05-12) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW27 **Remarks:** Fragile species to transportation stresses
- 2018 History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-05-12) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW29 **Remarks:** Fragile species to transportation stresses
- 2019 History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-05-12) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW30 **Remarks:** Fragile species to transportation stresses
- 2020 History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-05-12) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW31 **Remarks:** Fragile species to transportation stresses
- 2021 History:** < Noël, Mary-Hélène **Locality:** Kobe/Hyogo/Japan (2005-09-13) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW35 **Remarks:** Fragile species to transportation stresses
- 2022 History:** < Noël, Mary-Hélène **Locality:** Kobe/Hyogo/Japan (2005-09-13) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène (2006-01-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15µmol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW36 **Remarks:** Fragile species to transportation stresses

Scrippsiella sweeneyae Balech

- 684 History:** < KAGAWA < Yoshimatsu, Sadaaki **Locality:** Bisan-Seto/Japan (1982-07-30) **Isolator:** Yoshimatsu, Sadaaki **Identified by:** Yoshimatsu, Sadaaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20 °C ; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide **Gene data:** 5.8S rRNA (AY499520) **Remarks:** Fragile species to transportation stresses

Scrippsiella trochoidea (Stein) Loeblich III

- 369 History:** < Sawaguchi, Tomohiro **Locality:** Hachinohe Harbor/Aomori/Japan (1985-08-26) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide; Homothallic **Gene data:** 5.8S rRNA (AY499530); CO1 (AB000135); GapDH (AB106702); GapDH (AB106703) **Other strain no.:** HHSS-1 **References:** 262, 592, 676, 1032, 1243 **Remarks:** Unstable; Fragile species to transportation stresses
- 2015 History:** < Noël, Mary-Hélène **Locality:** Seto Inland Sea/Japan (2005-05-12) **Isolator:** Noël,

Mary-Hélène **Identified by:** Noël, Mary-Hélène (2005-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 10-15 μ mol/m²/s; 20 D **Habitat:** Marine (Sediment) **Other strain no.:** MHW28 **Remarks:** Fragile species to transportation stresses

SCYTONEMA : Cyanophyceae

Scytonema javanicum Bornet et Flahault

1956 History: < TAC **Locality:** Tsukuba Botanical Garden/Ibaraki/Japan **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-6 μ mol/m²/s; 1 M **Habitat:** Terrestrial **Other strain no.:** TAC 582

Scytonema sp.

2130 History: < IAM (2007) < Katoh, Hiroshi **Other collection strain no.:** IAM M-291 **Locality:** Himeji/Hyogo/Japan (2002-**-**) **Isolator:** Katoh, Hiroshi **Identified by:** Katoh, Hiroshi **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** BG-11 (agar); 20°C; 13-18 μ mol/m²/s; 3 M **Habitat:** Terrestrial **Characteristics:** Drought tolerance **Other strain no.:** HK-06

SELLAPHORA : Bacillariophyceae

Sellaphora seminulum (Grunow) D.G. Mann

Syn. *Navicula seminulum* Grunow

1353 History: < Mayama, Shigeki **Locality:** Taizoin Temple/Kyoto/Japan (2002-09-22) **Isolator:** Mayama, Shigeki **Identified by:** Mayama, Shigeki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi/5; 20 °C ; 15-27 μ mol/m²/s; 2 M **Habitat:** Freshwater (Pool sediment) **Characteristics:** Epilithic

SKELETONEMA : Bacillariophyceae

Skeletonema marinoi-dohrnii complex

16 History: < Watanabe, Makoto M. **Locality:** Harima-Nada/Japan (1982-02-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **Formerly identified as:** Skeletonema costatum (Greville) Cleve **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 10 °C ; 6-12 μ mol/m²/s; 1 M **Habitat:** Marine (Sediment) **Characteristics:** Red tide; DNA sequencing indicates this strain is included in Skeletonema marinoi/dohrnii clade **Gene data:** 18S rRNA (AB488607) **Other strain no.:** H-53-3 **References:** 408, 446, 838, 916, 1021

17 History: < Watanabe, Makoto M. **Locality:** Harima-Nada/Japan (1983-02-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **Formerly identified as:** Skeletonema costatum (Greville) Cleve **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 10 °C ; 6-12 μ mol/m²/s; 1 M **Habitat:** Marine (Sediment) **Characteristics:** Red tide; DNA sequencing indicates this strain is included in Skeletonema marinoi/dohrnii clade **Gene data:** 18S rRNA (AB488608) **Other strain no.:** H-90-2 **References:** 446, 576

223 History: < KAGAWA **Locality:** Shodo Isl./Kagawa/Japan (1979-07-12) **Isolator:** Yuki, Katsuhisa **Formerly identified as:** Skeletonema costatum (Greville) Cleve **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 10°C; 6-12 μ mol/m²/s; 1 M **Habitat:** Marine **Characteristics:** Red tide; DNA sequencing indicates this strain is included in Skeletonema marinoi/dohrnii clade **Gene data:** 18S rRNA (AB488609) **Other strain no.:** KGW-26 **Reference:** 446

323 History: < Osaka Pref. Fish. Exp. St. **Locality:** Osaka Bay/Osaka/Japan (1985-01-21) **Isolator:** Yamochi, Susumu **Identified by:** Yamochi, Susumu **Formerly identified as:** Skeletonema costatum (Greville) Cleve **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; 10 °C ; 6-12 μ mol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide; DNA sequencing indicates this strain is included in Skeletonema marinoi/dohrnii clade **Gene data:** 18S rRNA (AB488610); chloroplast genome (AJ132263); chloroplast genome (AJ132264); chloroplast genome (AJ132265); chloroplast genome (AJ132266); ycf24 (AJ132267) **Other strain no.:** Sk-85w **References:** 115, 137, 289, 434, 446, 802, 1012

- 324 **History:** < Osaka Pref. Fish. Exp. St. **Locality:** Osaka Bay/Hyogo/Japan (1985-07-02) **Isolator:** Yamochi, Susumu **Identified by:** Yamochi, Susumu **Formerly identified as:** Skeletonema costatum (Greville) Cleve **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** f/2; 10°C; 6-12µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Red tide; DNA sequencing indicates this strain is included in Skeletonema marinoi/dohrnii clade **Gene data:** 18S rRNA (AB488611) **Other strain no.:** Sk-85su **References:** 115, 446, 604, 803, 812

SPHAEROZOSMA : Charophyceae

Sphaerozosma sp.

- 2306 **History:** < Suda, Shoichiro **Locality:** Lake Ozenuma/Fukushima/Japan (1983-08-30) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CA; 20°C; 8-15µmol/m²/s; 3 M (25°C; 60-70µmol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** OZ-N-1-12

SPINOCLOSTERIUM : Charophyceae

Spinoclosterium cuspidatum (Bailey ex Ralfs) Hirano

- 325 **History:** < Ichimura, Terunobu **Locality:** Higashihiroshima/Hiroshima/Japan (1983-10-19) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** SW; 20°C; 8-15µmol/m²/s; 4 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Homothallic **Other strain no.:** 83-24-19 **Reference:** 238

SPIRULINA : Cyanophyceae

Spirulina subsalsa Oersted ex Gomont

- 27 **History:** < IAM (1983) **Other collection strain no.:** IAM M-183 (=M-223) **States:** Unialgal; Clonal; Axenic **Culture conditions:** MA; 25°C; 20-30µmol/m²/s; 1 M **Gene data:** 16S rRNA (AB003166) **References:** 214, 235, 280, 281, 282, 477, 567, 1187

- 527 **History:** < IAM (1983) **Other collection strain no.:** IAM M-182 **Locality:** Hokkaido/Japan (1976-04-**) **Isolator:** Watanabe, Makoto M.; Ichimura, Terunobu **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 25°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine **References:** 235, 567

- 598 **History:** < Hagiwara, Tomiji **Locality:** Chiyoda-ku/Tokyo/Japan (1989-10-02) **Isolator:** Hagiwara, Tomiji **Identified by:** Hagiwara, Tomiji **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** CB; CSi; 20°C; 8-15µmol/m²/s; 2 M (25°C; 60-70µmol/m²/s) **Habitat:** Freshwater (Pond water) **Other strain no.:** KO-39 **References:** 139, 567

SPUMELLA : Chrysophyceae

Spumella sp.

- 1846 **History:** < TKB **Locality:** Tsukuba, Namiki/Ibaraki/Japan (2002-09-11) **Isolator:** Yubuki, Naoji **Identified by:** Yubuki, Naoji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** URO + Wheat; 15°C; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Phagotrophic **Other strain no.:** TKB-010 (NY0108) **Reference:** 1271

STAURASTRUM : Charophyceae

Staurastrum dorsidentiferum W. et G.S. West

- 665 **History:** < Ishida, Yuzaburo **Locality:** Lake Biwa/Shiga/Japan (1986-09-**) **Isolator:** Ohara, S. **Identified by:** Nakanishi, Masami **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 25°C; 100-120µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Other strain no.:** NB **References:** 14, 567, 760, 1203, 1204

Staurastrum inconspicuum Nordstedt

- 390 **History:** < Kasai, Fumie **Locality:** Ozegahara/Gunma/Japan (1983-08-29) **Isolator:** Kasai, Fumie **States:** Unialgal; Clonal; Axenic **Culture conditions:** CAM; 20°C; 8-15µmol/m²/s; 3 M (20°C; 15-27µmol/m²/s) **Habitat:** Freshwater (Bog water) **Other strain no.:** 34-10' **Reference:** 567

Staurastrum levanderi Grönblad

- 841 **History:** < Gontcharov, A. **Locality:** Namiki-ike Pond/Ibaraki/Japan (1998-07-24) **Isolator:** Gontcharov, A. **Identified by:** Gontcharov, A. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Pond water) **Reference:** 127

Staurastrum paradoxum Meyen

- 528 **History:** < Watanabe, Michiko H. **Locality:** Lake Kasumigaura/Ibaraki/Japan (1982-12-**) **Isolator:** Watanabe, Michiko H. **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C; 20°C; 8-15µmol/m²/s; 2 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** Kas-K-3 **Reference:** 567

Staurastrum tsukubicum Gontcharov et M.M. Watanabe

- 842 **History:** < Gontcharov, A. **Locality:** Tsukuba/Ibaraki/Japan (1997-12-07) **Isolator:** Gontcharov, A. **Identified by:** Gontcharov, A. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** (Freshwater) **Characteristics:** Authentic strain **Reference:** 127

STAURODESMUS : Charophyceae*Stauromesmus dejectum* (Brébisson ex Ralfs) TeilingSyn. *Staurastrum dejectum* Brébisson ex Ralfs

- 224 **History:** < TAC **Locality:** Lake Yamanaka/Yamanashi/Japan (1981-10-26) **Isolator:** Watanabe, Masayuki **Identified by:** Watanabe, Masayuki **States:** Unialgal; Clonal; Axenic[2012 Nov] **Culture conditions:** AF-6; 20°C; 8-15µmol/m²/s; 2 M (20°C; 22-32µmol/m²/s) **Habitat:** Freshwater **Other strain no.:** TAC 53-1 (TAN-53-1) **Reference:** 567

STICHOCOCCUS : Trebouxiophyceae*Stichococcus ampulliformis* S.Handa

- 996 **History:** < Handa, Shinji **Locality:** Taishakukyo Valley/Hiroshima/Japan (1987-12-13) **Isolator:** Handa, Shinji **Identified by:** Handa, Shinji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (Plant (Bark of Cephalotaxus harringtonia)) **Characteristics:** Epiphytic; Authentic strain **Gene data:** 18S rRNA (AB087559) **Other strain no.:** Handa-299(f) **Reference:** 146 **Remarks:** Cryopreserved

Stichococcus bacillaris Nügeli

- 529 **History:** < Kasai, Fumie **Locality:** Watarase River/Gunma/Japan (1987-08-15) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie; Confirmed at NIES by DNA sequencing **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** C; 15°C; 15-22µmol/m²/s; 3 M **Habitat:** Freshwater (River water) **Gene data:** 18S rRNA (AB488606) **Other strain no.:** AT2-16 **References:** 567, 1018 **Remarks:** Cryopreserved

- 530 **History:** < Kasai, Fumie **Locality:** Watarase River/Gunma/Japan (1987-08-15) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie; Confirmed at NIES by DNA sequencing **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** C; 15°C; 15-22µmol/m²/s; 3 M **Habitat:** Freshwater (River water) **Gene data:** 18S rRNA (AB488605) **Other strain no.:** AT5-17 **References:** 567, 1018, 1019 **Remarks:** Cryopreserved

- 2184 **History:** < IAM (2007) < Holm-Hansen, O. **Other collection strain no.:** IAM C-170 **Locality:** Marble Point/Antarctica **Isolator:** Holm-Hansen, O. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat:** Freshwater **Other strain no.:**

Holm-Hansen M-13-d **Remarks:** Cryopreserved

STIGEOCLONIUM : Chlorophyceae

Stigeoclonium aestivale (Hazen) Collins

- 531 **History:** < Kasai, Fumie **Locality:** Miyata River/Ibaraki/Japan (1987-03-25) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15µmol/m²/s; 3 M **Habitat:** Freshwater (River water) **Other strain no.:** 2st-3-12 **References:** 567, 1017, 1018

Stigeoclonium fasciculare Kützing var. *fasciculare*

- 532 **History:** < Kasai, Fumie **Locality:** Lake Mashu/Hokkaido/Japan (1987-08-**) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 10°C; 6-12µmol/m²/s; 3 M (10°C; 10-15µmol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** M-2 **References:** 567, 1018

Stigeoclonium sp.

- 454 **History:** < Kasai, Fumie **Locality:** Shirai River/Hokkaido/Japan (1987-10-**) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **Formerly identified as:** Draparnaldia plumosa (Vaucher) Agardh **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** C; 10°C; 6-12µmol/m²/s; 3 M (10°C; 10-15µmol/m²/s) **Habitat:** Freshwater (River water) **Other strain no.:** 2Tst-2-1 **References:** 567, 1018

STIGONEMA : Cyanophyceae

Stigonema ocellatum (Dillwyn) Thuret ex Bornet et Flahault

- 2131 **History:** < IAM (2007) < SAG **Other collection strain no.:** IAM M-252; SAG D48.90 **Locality:** Allgäu/Germany (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 13-18µmol/m²/s; 3 M **Habitat:** Freshwater **Other strain no.:** A. Zehnder 232

SYMBIODINIUM : Dinophyceae

Symbiodinium sp. (Clade A)

- 2638 **History:** < Suda, Shoichiro **Locality:** Bise/Okinawa/Japan (2004-08-17) **Isolator:** Suda, Shoichiro **Identified by:** Hirose, Mamiko (2008-02-05) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** IMK; 20°C; 8-15µmol/m²/s; 3 M **Habitat:** Marine (Sand) **Characteristics:** Benthic **Gene data:** 28S-ITS (EU106366) **Other strain no.:** Bise07 **References:** 206, 1122 **Remarks:** Fragile species to transportation stresses

- 2639 **History:** < Suda, Shoichiro **Locality:** Ohdo Beach/Okinawa/Japan (2004-08-30) **Isolator:** Suda, Shoichiro **Identified by:** Hirose, Mamiko (2008-02-05) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** IMK; 20°C; 8-15µmol/m²/s; 3 M **Habitat:** Marine (Sand) **Characteristics:** Benthic **Gene data:** 28S-ITS (EU106365) **Other strain no.:** Odo06 **References:** 206, 1122 **Remarks:** Fragile species to transportation stresses

- 2640 **History:** < Suda, Shoichiro **Locality:** Oku/Okinawa/Japan (2003-08-14) **Isolator:** Suda, Shoichiro **Identified by:** Hirose, Mamiko (2008-02-05) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** IMK; 20°C; 8-15µmol/m²/s; 3 M **Habitat:** Marine (Sand) **Characteristics:** Benthic **Gene data:** 28S-ITS (EU106351) **Other strain no.:** Oku01 **References:** 206, 1122 **Remarks:** Fragile species to transportation stresses

- 2641 **History:** < Suda, Shoichiro **Locality:** Oku/Okinawa/Japan (2003-08-14) **Isolator:** Suda, Shoichiro **Identified by:** Hirose, Mamiko (2008-02-05) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** IMK; 20°C; 8-15µmol/m²/s; 3 M **Habitat:** Marine (Sand) **Characteristics:** Benthic **Gene data:** 28S-ITS (EU106353) **Other strain no.:** Oku03 **Reference:** 206 **Remarks:** Fragile species to transportation stresses

- 2642 **History:** < Suda, Shoichiro **Locality:** Oku/Okinawa/Japan (2003-08-14) **Isolator:** Suda, Shoichiro **Identified by:** Hirose, Mamiko (2008-02-05) **States:** Unialgal; Clonal; Non-axenic **Culture**

conditions: IMK; 20°C; 8-15µmol/m²/s; 3 M **Habitat:** Marine (Sand) **Characteristics:** Benthic **Gene data:** 28S-ITS (EU106355) **Other strain no.:** Oku05 **References:** 206, 1122 **Remarks:** Fragile species to transportation stresses

- 2643 History:** < Suda, Shoichiro **Locality:** Oku/Okinawa/Japan (2003-08-14) **Isolator:** Suda, Shoichiro **Identified by:** Hirose, Mamiko (2008-02-05) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** IMK; 20°C; 8-15µmol/m²/s; 3 M **Habitat:** Marine (Sand) **Characteristics:** Benthic **Gene data:** 28S-ITS (EU106361) **Other strain no.:** Oku12 **Reference:** 206 **Remarks:** Fragile species to transportation stresses

SYMBIOMONAS : Bicoecea

Symbiomonas scintillans Guillou et Chrétiennot-Dinet

- 2589 History:** < RCC (2009) **Other collection strain no.:** RCC 24; CCMP 1950 **Locality:** Equatorial Pacific (1994-11-26) **Isolator:** Vaulot, Daniel; Guillou, L. (Re-isolation) **Identified by:** Guillou, L. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Rice; 20°C; 15-20µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Heterotrophic **Other strain no.:** OLI120SDA

SYMPLOCA : Cyanophyceae

Symploca muscorum (Agardh) Gomont

- 2132 History:** < IAM (2007) **Other collection strain no.:** IAM M-133 **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 13-18µmol/m²/s; 3 M

SYNECHOCOCCUS : Cyanophyceae

Synechococcus sp.

- 937 History:** < Takamura, Noriko **Locality:** Lake Junsainuma/Hokkaido/Japan (1991-06-20) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** CB; 15 °C ; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** cpcBA-IGS (AF223433) **Other strain no.:** JUS 1 **Reference:** 856 **Remarks:** Cryopreserved

- 938 History:** < Takamura, Noriko **Locality:** Lake Harutori/Hokkaido/Japan (1991-05-15) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** CB; 15°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Euryhaline **Gene data:** cpcBA-IGS (AF223434) **Other strain no.:** HAR 3 **Reference:** 856 **Remarks:** Cryopreserved

- 939 History:** < Takamura, Noriko **Locality:** Lake Harutori/Hokkaido/Japan (1991-05-15) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** CB; 15°C; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Euryhaline **Gene data:** cpcBA-IGS (AF223438) **Other strain no.:** HAR 10 **Reference:** 856 **Remarks:** Cryopreserved

- 940 History:** < Takamura, Noriko **Locality:** Lake Harutori/Hokkaido/Japan (1991-05-29) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15 °C ; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** cpcBA-IGS (AF223452) **Other strain no.:** HIM 1 **Reference:** 856 **Remarks:** Cryopreserved

- 941 History:** < Takamura, Noriko **Locality:** Lake Teganuma/Chiba/Japan (1991-06-04) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15 °C ; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** cpcBA-IGS (AF223439) **Other strain no.:** TEG 1 **Reference:** 856 **Remarks:** Cryopreserved

- 942 History:** < Takamura, Noriko **Locality:** Lake Ushikunuma/Ibaraki/Japan (1991-06-04) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15 °C ; 15-22µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** cpcBA-IGS (AF223440) **Other strain no.:** USK 1 **Reference:** 856 **Remarks:** Cryopreserved

- 943 History:** < Takamura, Noriko **Locality:** Lake Kojima/Okayama/Japan (1991-07-09) **Isolator:**

- Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15 °C ; 15-22 μ mol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** cpcBA-IGS (AF223441) **Other strain no.:** KOJ 1 **Reference:** 856 **Remarks:** Cryopreserved
- 944 History:** < Takamura, Noriko **Locality:** Lake Abashiri/Hokkaido/Japan (1991-05-10) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15°C; 15-22 μ mol/m²/s; 2 M **Habitat:** Brackish water (Water) **Gene data:** cpcBA-IGS (AF223453) **Other strain no.:** ABS 10 **Reference:** 856 **Remarks:** Cryopreserved
- 945 History:** < Takamura, Noriko **Locality:** Lake Biwa, North Basin/Shiga/Japan (1990-09-12) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15°C; 15-22 μ mol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** 16S rRNA (AF216951); cpcBA-IGS (AF223428); rpoC1 (AF245124) **Other strain no.:** B 1 **Reference:** 856 **Remarks:** Cryopreserved
- 946 History:** < Takamura, Noriko **Locality:** Lake Kasumigaura/Ibaraki/Japan (1991-02-06) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15 °C ; 15-22 μ mol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** cpcBA-IGS (AF223443) **Other strain no.:** 2K 11 **References:** 856, 1077 **Remarks:** Cryopreserved
- 947 History:** < Takamura, Noriko **Locality:** Lake Sagami/Kanagawa/Japan (1991-04-11) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15 °C ; 15-22 μ mol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** cpcBA-IGS (AF223444) **Other strain no.:** SA 1 **Reference:** 856 **Remarks:** Cryopreserved
- 948 History:** < Takamura, Noriko **Locality:** Lake Abashiri/Hokkaido/Japan (1991-05-10) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15°C; 15-22 μ mol/m²/s; 2 M **Habitat:** Brackish water (Water) **Gene data:** cpcBA-IGS (AF223454) **Other strain no.:** ABS 11 **Reference:** 856 **Remarks:** Cryopreserved
- 949 History:** < Takamura, Noriko **Locality:** Lake Ushikunuma/Ibaraki/Japan (1991-06-04) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** CB; 15 °C ; 15-22 μ mol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** cpcBA-IGS (AF223455) **Other strain no.:** USK 2 **Reference:** 856 **Remarks:** Cryopreserved
- 950 History:** < Takamura, Noriko **Locality:** Lough Neagh/Northern Ireland/U.K. (1991-03-09) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15°C; 10-18 μ mol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** cpcBA-IGS (AF223448) **Other strain no.:** LN 3 **Reference:** 856 **Remarks:** Cryopreserved
- 951 History:** < Takamura, Noriko **Locality:** Lake Akan/Hokkaido/Japan (1991-05-14) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15 °C ; 10-18 μ mol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** 16S rRNA (AF216952); cpcB, cpcA (AF223429); rpoC1 (AF245125) **Other strain no.:** AKN 3 **Reference:** 856 **Remarks:** Cryopreserved
- 952 History:** < Takamura, Noriko **Locality:** Lake Kizaki/Nagano/Japan (1991-05-15) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** CB; 15 °C ; 10-18 μ mol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** cpcBA-IGS (AF223449) **Other strain no.:** KIZ 5/3 **Reference:** 856 **Remarks:** Cryopreserved
- 953 History:** < Takamura, Noriko **Locality:** Lake Biwa, North Basin/Shiga/Japan (1990-09-12) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15°C; 10-18 μ mol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Gene data:** 16S rRNA (AF216953); cpcBA-IGS (AF223430) **Other strain no.:** B 10 **Reference:** 856 **Remarks:** Cryopreserved
- 954 History:** < Takamura, Noriko **Locality:** Lake Biwa, North Basin/Shiga/Japan (1990-09-12) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15°C; 10-18 μ mol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Gene data:** cpcBA-IGS (AF223456) **Other strain no.:** B 8 **Reference:** 856 **Remarks:** Cryopreserved

- 955 History:** < Takamura, Noriko **Locality:** Lake Kizaki/Nagano/Japan (1991-04-15) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15 °C ; 10-18 μ mol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** cpcBA-IGS (AF223445) **Other strain no.:** KIZ 5/1 **References:** 392, 393, 856 **Remarks:** Cryopreserved
- 956 History:** < Takamura, Noriko **Locality:** Lake Nojiri/Nagano/Japan (1991-05-09) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** CT; 15°C; 10-18 μ mol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Gene data:** cpcBA-IGS (AF223450) **Other strain no.:** NOJ 1 **Reference:** 856 **Remarks:** Cryopreserved
- 957 History:** < Takamura, Noriko **Locality:** Lake Biwa, North Basin/Shiga/Japan (1991-06-14) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15°C; 10-18 μ mol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Gene data:** 16S rRNA (AF216954); cpcBA-IGS (AF223431) **Other strain no.:** B 11 **Reference:** 856 **Remarks:** Cryopreserved
- 958 History:** < Takamura, Noriko **Locality:** Lake Biwa, North Basin/Shiga/Japan (1990-09-12) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15°C; 10-18 μ mol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Gene data:** cpcBA-IGS (AF223435) **Other strain no.:** B 4 **Reference:** 856 **Remarks:** Cryopreserved
- 959 History:** < Takamura, Noriko **Locality:** Lake Biwa, North Basin/Shiga/Japan (1990-09-12) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15°C; 10-18 μ mol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Cyanobacterial water bloom (aoko) **Gene data:** 16S rRNA (AF216955); cpcBA-IGS (AF223432) **Other strain no.:** B 3 **Reference:** 856 **Remarks:** Cryopreserved
- 960 History:** < Takamura, Noriko **Locality:** Lake Tsukui/Kanagawa/Japan (1991-04-11) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15 °C ; 10-18 μ mol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** cpcBA-IGS (AF223436) **Other strain no.:** TSU 3 **Reference:** 856 **Remarks:** Cryopreserved
- 961 History:** < Takamura, Noriko **Locality:** Lake Kasumigaura/Ibaraki/Japan (1991-02-06) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15 °C ; 10-18 μ mol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** cpcBA-IGS (AF223446) **Other strain no.:** 2K 12 **References:** 856, 1077 **Remarks:** Cryopreserved
- 962 History:** < Takamura, Noriko **Locality:** Lake Ohnuma/Hokkaido/Japan (1991-06-20) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** CB; 15 °C ; 10-18 μ mol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** cpcBA-IGS (AF223442) **Other strain no.:** ONM 3 **Reference:** 856 **Remarks:** Cryopreserved
- 963 History:** < Takamura, Noriko **Locality:** Lake Nakatsuna/Nagano/Japan (1991-05-15) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15 °C ; 10-18 μ mol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** cpcBA-IGS (AF223447) **Other strain no.:** NT 5 **Reference:** 856 **Remarks:** Cryopreserved
- 964 History:** < Takamura, Noriko **Locality:** Lake Megami/Nagano/Japan (1991-05-09) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15 °C ; 10-18 μ mol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** cpcBA-IGS (AF223437) **Other strain no.:** Me 5 **Reference:** 856 **Remarks:** Cryopreserved
- 965 History:** < Takamura, Noriko **Locality:** Lake Misuzu/Nagano/Japan (1991-05-15) **Isolator:** Takamura, Noriko **Identified by:** Takamura, Noriko **States:** Unialgal **Culture conditions:** C; 15 °C ; 10-18 μ mol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** cpcBA-IGS (AF223451) **Other strain no.:** MSZ 2 **Reference:** 856 **Remarks:** Cryopreserved
- 969 History:** < Tezuka, Naoaki **Locality:** East China Sea (1998-06-01) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 40-50 μ mol/m²/s; 1 M **Habitat:** Marine (Seawater) **Gene data:** 16S rRNA (AF448060); rpoC1

- (AF448082) **Other strain no.:** 1002 **Remarks:** Cryopreserved
- 970 History:** < Tezuka, Naoaki **Locality:** Tokunoshima Isl./Kagoshima (1998-08-28) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Tidal flat sand water) **Gene data:** 16S rRNA (AF448073) **Other strain no.:** T71 **Remarks:** Cryopreserved
- 971 History:** < Tezuka, Naoaki **Locality:** Tokunoshima Isl./Kagoshima (1998-08-28) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Tidal flat sand water) **Characteristics:** Euryhaline **Gene data:** 16S rRNA (AF448061); rpoC1 (AF448083) **Other strain no.:** T7cc1 **Remarks:** Cryopreserved
- 972 History:** < Tezuka, Naoaki **Locality:** Iriomote Isl./Okinawa/Japan (1998-11-05) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Tidal flat seawater) **Characteristics:** Euryhaline **Gene data:** 16S rRNA (AF448079); rpoC1 (AF448117) **Other strain no.:** IR11 **Remarks:** Cryopreserved
- 973 History:** < Tezuka, Naoaki **Locality:** Iriomote Isl., Urauchi River/Okinawa/Japan (1998-11-05) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C + 10% Seawater; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Tidal flat sediment) **Gene data:** 16S rRNA (AF448062) **Other strain no.:** 48 **Remarks:** Cryopreserved
- 974 History:** < Tezuka, Naoaki **Locality:** Irimomote Isl., Funaura/Okinawa/Japan (1998-11-06) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Gene data:** rpoC1 (AF448101) **Other strain no.:** 58E8 **Remarks:** Cryopreserved
- 975 History:** < Tezuka, Naoaki **Locality:** Irimomote Isl., Funaura/Okinawa/Japan (1998-11-06) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Gene data:** rpoC1 (AF448099) **Other strain no.:** 58g6 **Remarks:** Cryopreserved
- 976 History:** < Tezuka, Naoaki **Locality:** Irimomote Isl., Funaura/Okinawa/Japan (1998-11-06) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Gene data:** rpoC1 (AF448100) **Other strain no.:** 59 **Remarks:** Cryopreserved
- 977 History:** < Tezuka, Naoaki **Locality:** Taiyo/Ibaraki/Japan (1999-01-08) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Gene data:** rpoC1 (AF448105) **Other strain no.:** taiyo **Remarks:** Cryopreserved
- 978 History:** < Tezuka, Naoaki **Locality:** Iriomote Isl., Urauchi/Okinawa/Japan (1999-02-04) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C + 10% Seawater; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Tidal flat sediment) **Characteristics:** Euryhaline **Gene data:** 16S rRNA (AF448063); rpoC1 (AF448084) **Other strain no.:** UBR **Remarks:** Cryopreserved
- 979 History:** < Tezuka, Naoaki **Locality:** Iriomote Isl., Urauchi/Okinawa/Japan (1999-02-04) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Tidal flat sediment) **Gene data:** 16S rRNA (AF448074); rpoC1 (AF448109) **Other strain no.:** UH7 **Remarks:** Cryopreserved
- 980 History:** < Tezuka, Naoaki **Locality:** Iriomote Isl., Komi/Okinawa/Japan (1999-06-30) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Tidal flat sediment) **Gene data:** rpoC1 (AF448097) **Other strain no.:** kom **Remarks:** Cryopreserved
- 981 History:** < Tezuka, Naoaki **Locality:** Iriomote Isl., Hoshidate/Okinawa/Japan (1999-07-01) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Tidal flat sediment) **Gene data:**

- 16S rRNA (AF448064); rpoC1 (AF448085) **Other strain no.:** Hos **Remarks:** Cryopreserved
- 982 History:** < Tezuka, Naoaki **Locality:** Iriomote Isl., Hoshidate/Okinawa/Japan (1999-07-01) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Tidal flat sediment) **Gene data:** rpoC1 (AF448113) **Other strain no.:** Hosso **Remarks:** Cryopreserved
- 983 History:** < Tezuka, Naoaki **Locality:** Sagami Bay/Shizuoka/Japan (1999-07-11) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Gene data:** rpoC1 (AF448104) **Other strain no.:** St235 **Remarks:** Cryopreserved
- 984 History:** < Tezuka, Naoaki **Locality:** Takori River/Nagasaki/Japan (1999-08-02) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Axenic **Culture conditions:** C + 10% Seawater; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Tidal flat sediment) **Gene data:** 16S rRNA (AF448066); rpoC1 (AF448087) **Other strain no.:** TAG **Remarks:** Cryopreserved
- 985 History:** < Tezuka, Naoaki **Locality:** Miyake Isl./Tokyo/Japan (1999-11-29) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Gene data:** rpoC1 (AF448102) **Other strain no.:** miyaR **Remarks:** Cryopreserved
- 986 History:** < Tezuka, Naoaki **Locality:** Iriomote Isl., Ohara/Okinawa/Japan (1998-11-06) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** 74 **Remarks:** Cryopreserved
- 987 History:** < Tezuka, Naoaki **Locality:** Futtsu/Chiba/Japan (1999-06-15) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Tidal flat sediment) **Other strain no.:** FUT **Remarks:** Cryopreserved
- 988 History:** < Tezuka, Naoaki **Locality:** Miyake Isl./Tokyo/Japan (1999-11-25) **Isolator:** Tezuka, Naoaki **Identified by:** Tezuka, Naoaki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** miyaY **Remarks:** Cryopreserved
- 1341 History:** < Crosbie, Nicholas D. **Locality:** Lake Mondsee/Austria (2001-**-**) **Isolator:** Crosbie, Nicholas, D. **Identified by:** Crosbie, Nicholas D. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 15°C; 10-18µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Gene data:** 16S rRNA (AY151248); cpcBA-IGS (AY151212) **Other strain no.:** MW10#1 **References:** 59, 60 **Remarks:** Cryopreserved
- 1342 History:** < Crosbie, Nicholas D. **Locality:** Lake Mondsee/Austria (2001-**-**) **Isolator:** Crosbie, Nicholas, D. **Identified by:** Crosbie, Nicholas D. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 15°C; 10-18µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Gene data:** 16S rRNA (AY151232); cpcBA-IGS (AY151215) **Other strain no.:** MW15#2 **References:** 59, 60 **Remarks:** Cryopreserved
- 1343 History:** < Crosbie, Nicholas D. **Locality:** Lake Hallstättersee/Austria (2001-**-**) **Isolator:** Crosbie, Nicholas, D. **Identified by:** Crosbie, Nicholas D. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 15°C; 10-18µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Gene data:** 16S rRNA (AY151240) **Other strain no.:** MW72C6 **References:** 59, 60 **Remarks:** Cryopreserved
- 1344 History:** < Crosbie, Nicholas D. **Locality:** Lake Hallstättersee/Austria (2001-**-**) **Isolator:** Crosbie, Nicholas, D. **Identified by:** Crosbie, Nicholas D. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 15°C; 10-18µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Gene data:** 16S rRNA (AY151250) **Other strain no.:** MW73B4 **References:** 59, 60 **Remarks:** Cryopreserved
- 1345 History:** < Crosbie, Nicholas D. **Locality:** Lake Hallstättersee/Austria (2001-**-**) **Isolator:** Crosbie, Nicholas, D. **Identified by:** Crosbie, Nicholas D. **States:** Unialgal; Clonal; Non-axenic

Culture conditions: CB; 15°C; 10-18 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Gene data:** 16S rRNA (AY151245) **Other strain no.:** MW76B2 **References:** 59, 60 **Remarks:** Cryopreserved

- 1346 **History:** < Crosbie, Nicholas D. **Locality:** Lake Hallstättersee/Austria (2001-**-**) **Isolator:** Crosbie, Nicholas, D. **Identified by:** Crosbie, Nicholas D. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 15°C; 10-18 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Gene data:** 16S rRNA (AY151246); cpcBA-IGS (AY151217) **Other strain no.:** MW77D1 **References:** 59, 60 **Remarks:** Cryopreserved
- 1347 **History:** < Crosbie, Nicholas D. **Locality:** Lake Mondsee/Austria (2001-**-**) **Isolator:** Crosbie, Nicholas, D. **Identified by:** Crosbie, Nicholas D. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CB; 15°C; 10-18 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Gene data:** 16S rRNA (AY224199); cpcBA-IGS (AY224205) **Other strain no.:** MH301 **References:** 59, 60 **Remarks:** Cryopreserved
- 1348 **History:** < Crosbie, Nicholas D. **Locality:** Lake Mondsee/Austria (2001-**-**) **Isolator:** Crosbie, Nicholas, D. **Identified by:** Crosbie, Nicholas D. **States:** Unialgal; Clonal; Axenic **Culture conditions:** CB; 15°C; 10-18 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Gene data:** 16S rRNA (AY224198); cpcBA-IGS (AY224206) **Other strain no.:** MH305 **References:** 59, 60 **Remarks:** Cryopreserved

SYNURA : Chrysophyceae

Synura petersenii Korshikov

- 233 **History:** < Suda, Shoichiro **Locality:** Higashiyata River/Ibaraki/Japan (1983-07-02) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 15-22 μ mol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** psbC (GU325377) **Other strain no.:** USI-10 **Reference:** 973
- 1007 **History:** < Moriya, Mayumi **Locality:** Bibi River/Hokkaido/Japan (1999-11-**) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 15-22 μ mol/m²/s; 2 M **Habitat:** Freshwater (River water) **Other strain no.:** #73 **Reference:** 36

Synura sphagnicola (Korshikov) Korshikov

- 695 **History:** < Nozaki, Hisayoshi **Locality:** Miyatoko Mire/Fukushima/Japan (1992-04-27) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-22 μ mol/m²/s; 1 M **Habitat:** Freshwater (Stream water) **Other strain no.:** 92-520-S-6
- 696 **History:** < Nozaki, Hisayoshi **Locality:** Miyatoko Mire/Fukushima/Japan (1992-10-01) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-22 μ mol/m²/s; 1 M **Habitat:** Freshwater (Stream water) **Other strain no.:** 92-1001-S-2 **Reference:** 565

Synura spinosa Korshikov

- 234 **History:** < Suda, Shoichiro **Locality:** Tsuchiura/Ibaraki/Japan (1983-07-22) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 15-22 μ mol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Other strain no.:** SIS-1 **Reference:** 973

TABELLARIA : Bacillariophyceae

Tabellaria flocculosa (Roth) Kützing

- 225 **History:** < Watanabe, Makoto M. **Locality:** Ozegahara/Fukushima/Japan (1983-08-30) **Isolator:** Watanabe, Makoto M. **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** CSi; 15°C; 20-30 μ mol/m²/s; 2 M **Habitat:** Freshwater (Bog water) **Other strain no.:** OZ-43-4 **Reference:** 838

TABRIS : Chlorophyceae*Tabris heimii* (Bourrelly) NakadaSyn. *Chlorogonium heimii* Bourrelly

- 2294 History:** < Nakada, Takashi **Locality:** Lake Okegaya-numa/Shizuoka/Japan (2004-07-23) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2007-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mAC; 20°C; 32-40µmol/m²/s; 14 D **Habitat:** Freshwater (Sediment) **Characteristics:** Mixotrophic; Authentic strain **Gene data:** 18S rRNA (AB451189); psaB (AB451216); rbcL (B451194) **Other strain no.:** IwCl-10 **Reference:** 609
- 2295 History:** < Nakada, Takashi **Locality:** Lake Okegaya-numa/Shizuoka/Japan (2004-07-23) **Isolator:** Nakada, Takashi **Identified by:** Nakada, Takashi (2007-12-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mAC; 20°C; 32-40µmol/m²/s; 14 D **Habitat:** Freshwater (Sediment) **Characteristics:** Mixotrophic **Other strain no.:** IwCl-12 **Reference:** 609

TETRABAENA : Chlorophyceae*Tetrabaena socialis* (Dujardin) Nozaki et ItoSyn. *Gonium sociale* (Dujardin) Warming

- 691 History:** < Nozaki, Hisayoshi **Locality:** King George Isl./Antarctica (1990-12-**) **Isolator:** Ohtani, Shuji **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** AF-6; 10°C; 15-20µmol/m²/s; 1 M **Habitat:** Snow **Characteristics:** Cryophilic **Other strain no.:** KG-4-8th **References:** 567, 739
- 1437 History:** < TKB **Locality:** Hyotaro-ike Pond/Ibaraki/Japan (2003-01-**) **Isolator:** Nakayama, Takeshi **Identified by:** Nakayama, Takeshi **Formerly identified as:** Basichlamys sacculifera (Scherffel) Skuja **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 22-32µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Characteristics:** Benthic **Other strain no.:** TKB-051 (nak-06)

Tetrabaena socialis (Dujardin) Nozaki et Ito var. *socialis*Syn. *Gonium sociale* (Dujardin) Warming var. *sociale*

- 571 History:** < Nozaki, Hisayoshi **Locality:** Yokohama, Kohoku-ku/Kanagawa/Japan (1982-08-24) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater (Pond sediment) **Characteristics:** Homothallic; Isogamy **Gene data:** atpB (AB014014); psaA (AB044415); psaB (AB044466); psbC (AB044525); rbcL (D63443) **Other strain no.:** 21028-4 **References:** 567, 696, 714, 715, 733, 738, 739, 740

TETRACYSTIS : Chlorophyceae*Tetracystis chlorococcoides* (Korshikov) S.Watanabe

- 155 History:** < Watanabe, Shin **Locality:** Mt. Eboshidake/Nagasaki/Japan (1975-08-15) **Isolator:** Watanabe, Shin **Identified by:** Watanabe, Shin **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (Soil) **Other strain no.:** 3-EBO-1 **References:** 567, 1186

TETRAHYMENA : Oligohymenophorea*Tetrahymena pyriformis* Ehrenberg

- 403 History:** < Sudo, Ryuichi **Locality:** Lake Kasumigaura/Ibaraki/Japan (1976-08-**) **Isolator:** Sudo, Ryuichi **Identified by:** Sudo, Ryuichi **Culture conditions:** LE; URO + Wheat; 10°C; 0µmol/m²/s; 20 D (20°C) **Habitat:** Freshwater **Characteristics:** Other water bloom **Other strain no.:** Tetra-1 **Reference:** 293 **Remarks:** Fragile species to transportation stresses

TETRASELMIS : Prasinophyceae

Tetraselmis cordiformis (Carter) Stein

- 18 **History:** < Watanabe, Makoto M. **Locality:** Shimokubo Dam/Gunma/Japan (1980-04-**) **Isolator:** Watanabe, Makoto M. **Identified by:** Inouye, Isao **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** C; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Other water bloom **Other strain no.:** SM-6-9 **References:** 138, 1159
- 533 **History:** < Suda, Shoichiro **Locality:** Mitsukaido/Ibaraki/Japan (1985-07-03) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 22-32µmol/m²/s; 20 D **Habitat:** Freshwater (Pond water) **Other strain no.:** KY-20-1 **Reference:** 1014

Tetraselmis levis Butcher

- 1430 **History:** < TKB **Locality:** Ishigaki Isl./Okinawa/Japan (2003-12-**) **Isolator:** Kai, Atsushi **Identified by:** Kai, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2 + NH₄Cl; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-121 (AK-14)

Tetraselmis sp.

- 1429 **History:** < TKB **Locality:** Ishigaki Harbor/Okinawa/Japan (2003-12-25) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-083 (nrc059)
- 1431 **History:** < TKB **Locality:** Amachi Beach/Okinawa/Japan (2003-12-**) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Benthic **Other strain no.:** TKB-091 (nrc067)
- 1432 **History:** < TKB **Locality:** Wakayama/Japan (2002-07-**) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-043 (nrc030-035)
- 1433 **History:** < TKB **Locality:** Isonoura Beach/Wakayama/Japan (2003-06-**) **Isolator:** Okamoto, Noriko **Identified by:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 20-30µmol/m²/s; 20 D **Habitat:** Marine (Sand and seawater) **Other strain no.:** TKB-073 (nrc052*)
- 1434 **History:** < TKB **Locality:** Ishigaki Harbor/Okinawa/Japan (2003-12-**) **Isolator:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** TKB-095 (nrc)

Tetraselmis striata Butcher

- 1019 **History:** < Moriya, Mayumi **Locality:** Nagahama/Hiroshima/Japan (2001-03-**) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 32-40µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** #96

Tetraselmis verrucosa (Butcher) Parke

- 1836 **History:** < TKB **Locality:** Naha/Okinawa/Japan (2005-01-22) **Isolator:** Yamaguchi, Haruyo **Identified by:** Yamaguchi, Haruyo (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-276

THALASSIONEMA : Bacillariophyceae*Thalassionema nitzschiooides* (Grunow) Hustedt

- 534 **History:** < Sawaguchi, Tomohiro **Locality:** Matoya Bay/Mie/Japan (1984-09-01) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 15°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** MBB-6 **Reference:** 838

THAUMATOMASTIX : Imbricatea*Thaumatomastix* sp.

- 1443 **History:** < TKB **Locality:** Hachijo Isl./Tokyo/Japan (2002-12-13) **Isolator:** Yubuki, Naoji **Identified by:** Yubuki, Naoji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** BESM2; 15°C; 0µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Characteristics:** Heterotrophic **Other strain no.:** TKB-023 (NY0134) **Reference:** 137
- 2378 **History:** < TKB **Locality:** Tokyo Bay/Chiba/Japan (2007-02-25) **Isolator:** Yabuki, Akinori **Identified by:** Yabuki, Akinori (2007-**-**) **Culture conditions:** ESM; 20°C; 0µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Phagotrophic; Benthic **Other strain no.:** TKB-345

THERMOSYNECHOCOCCUS : Cyanophyceae*Thermosynechococcus elongatus* Katoh, Itoh, Shen et Ikeuchi
Syn. *Synechococcus elongatus*

- 2133 **History:** < IAM (2007) **Other collection strain no.:** IAM M-273 **Locality:** Beppu Hot Spring/Oita/Japan **States:** Unialgal; Clonal; Axenic[2012 Mar] **Culture conditions:** BG-11 (agar); 55°C; 8-15µmol/m²/s; 3 M **Habitat:** Hot spring **Characteristics:** Thermophilic (opt. 57°C) **Other strain no.:** BP-1 **Remarks:** Fragile species to temperature changes

Thermosynechococcus vulcanus Katoh, Itoh, Shen et Ikeuchi nom. nud.
Syn. *Synechococcus vulcanus*

- 2134 **History:** < IAM (2007) **Other collection strain no.:** IAM M-293 **Locality:** Yunomine Hot Spring/Wakayama/Japan **States:** Unialgal; Clonal; Axenic[2012 Mar] **Culture conditions:** BG-11 (agar); 55°C; 8-15µmol/m²/s; 3 M **Habitat:** Hot spring **Characteristics:** Thermophilic (opt. 57°C) **Remarks:** Fragile species to temperature changes

THORACOSPHAERA : Dinophyceae*Thoracosphaera heimii* (Lohmann) Kamptner

- 1325 **History:** < Kawachi, Masanobu **Locality:** Hachijo Isl., Yaene Harbor/Tokyo/Japan (2002-01-23) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mIMR; MNK; 20°C; 25-40µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** MH 36 **Remarks:** Fragile species to transportation stresses
- 1326 **History:** < Kawachi, Masanobu **Locality:** East China Sea (2003-08-06) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mIMR; MNK; 20°C; 25-40µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** MH 78 **Remarks:** Fragile species to transportation stresses

THOREA : Florideophyceae*Thorea gaudichaudii* C.Agardh

- 1473 **History:** < Higa, Atsushi **Locality:** Okinawa Isl./Okinawa/Japan (2002-03-16) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku; Kumano, Shigeru (2002-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN **Other strain no.:** IK1 **Reference:** 142
- 1474 **History:** < Higa, Atsushi **Locality:** Nugesuku-ga/Okinawa/Japan (2002-03-17) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku; Kumano, Shigeru (2002-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN **Other strain no.:** NUG-1
- 1475 **History:** < Ishimoto, Miwa **Locality:** Nugesuku-ga/Okinawa/Japan (2002-07-10) **Isolator:** Ishimoto, Miwa **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic **Culture**

- conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Monoecious; CR+EN **Other strain no.:** NUG-4
- 1476 History:** < Ishimoto, Miwa **Locality:** Nugesuku-ga/Okinawa/Japan (2002-07-10) **Isolator:** Ishimoto, Miwa **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Monoecious; CR+EN **Other strain no.:** NUG-5
- 1477 History:** < Ishimoto, Miwa **Locality:** Nugesuku-ga/Okinawa/Japan (2002-07-10) **Isolator:** Ishimoto, Miwa **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Monoecious; CR+EN **Other strain no.:** NUG-2
- 1478 History:** < Ishimoto, Miwa **Locality:** Nugesuku-ga/Okinawa/Japan (2002-07-10) **Isolator:** Ishimoto, Miwa **Identified by:** Kawachi, Masanobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Monoecious; CR+EN **Other strain no.:** NUG-3
- 1479 History:** < Higa, Atsushi **Locality:** Nju-ga/Okinawa/Japan (2004-02-19) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN **Other strain no.:** UJU-1
- 1480 History:** < Higa, Atsushi **Locality:** Nju-ga/Okinawa/Japan (2004-02-19) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN **Other strain no.:** UJU-2
- 1481 History:** < Higa, Atsushi **Locality:** Nju-ga/Okinawa/Japan (2004-02-19) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN **Other strain no.:** UJU-3
- 1482 History:** < Higa, Atsushi **Locality:** Nju-ga/Okinawa/Japan (2004-02-19) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN **Other strain no.:** UJU-4
- 1751 History:** < Higa, Atsushi **Locality:** Nju-ga/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN **Other strain no.:** 03nj2-1
- 1752 History:** < Higa, Atsushi **Locality:** Nju-ga/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN **Other strain no.:** 03nj221
- 1753 History:** < Higa, Atsushi **Locality:** Nju-ga/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN **Other strain no.:** 03nj6
- 1754 History:** < Higa, Atsushi **Locality:** Nju-ga/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture**

- conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN **Other strain no.:** 03nj811
- 1755 History:** < Higa, Atsushi **Locality:** Nju-ga/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN **Other strain no.:** 03nj91
- 1756 History:** < Higa, Atsushi **Locality:** Nju-ga/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN **Other strain no.:** 03nj10
- 1757 History:** < Higa, Atsushi **Locality:** Kucha-ga/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN **Other strain no.:** 03KC2
- 1758 History:** < Higa, Atsushi **Locality:** Kucha-ga/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN **Other strain no.:** 03KC3
- 1759 History:** < Higa, Atsushi **Locality:** Kucha-ga/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN **Other strain no.:** 03KC4
- 1760 History:** < Higa, Atsushi **Locality:** Kucha-ga/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN **Other strain no.:** 03KC5
- 1761 History:** < Higa, Atsushi **Locality:** Shikinaen, Ikutoku-sen Spring/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN **Other strain no.:** 03si3
- 1762 History:** < Higa, Atsushi **Locality:** Shikinaen, Ikutoku-sen Spring/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN **Other strain no.:** 03si51
- 1763 History:** < Higa, Atsushi **Locality:** Shikinaen, Ikutoku-sen Spring/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN **Other strain no.:** 03si11
- 1764 History:** < Higa, Atsushi **Locality:** Shikinaen, Ikutoku-sen Spring/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious;

- CR+EN Other strain no.: 03si12
- 1765 History:** < Higa, Atsushi **Locality:** Shikinaen, Ikutoku-sen Spring/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN Other strain no.: 03si13
- 1766 History:** < Higa, Atsushi **Locality:** Shikinaen, Ikutoku-sen Spring/Okinawa/Japan (2005-03-23) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2005-03-23) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN Other strain no.: 03sii
- 1767 History:** < Higa, Atsushi **Locality:** Ohkubo-ga/Okinawa/Japan (2005-06-29) **Isolator:** Higa, Atsushi **Identified by:** Higa, Atsushi (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN Other strain no.: OB1
- 1768 History:** < Higa, Atsushi **Locality:** Ohkubo-ga/Okinawa/Japan (2005-06-29) **Isolator:** Higa, Atsushi **Identified by:** Higa, Atsushi (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN Other strain no.: OB2
- 1769 History:** < Higa, Atsushi **Locality:** Ohkubo-ga/Okinawa/Japan (2005-06-29) **Isolator:** Higa, Atsushi **Identified by:** Higa, Atsushi (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN Other strain no.: OB3
- 1770 History:** < Higa, Atsushi **Locality:** Yafu-ga/Okinawa/Japan (2005-06-29) **Isolator:** Higa, Atsushi **Identified by:** Higa, Atsushi (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN Other strain no.: YF1
- 1771 History:** < Higa, Atsushi **Locality:** Yafu-ga/Okinawa/Japan (2005-06-29) **Isolator:** Higa, Atsushi **Identified by:** Higa, Atsushi (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN Other strain no.: YF2
- 1772 History:** < Higa, Atsushi **Locality:** Kucha-ga/Okinawa/Japan (2005-06-29) **Isolator:** Higa, Atsushi **Identified by:** Higa, Atsushi (2005-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN Other strain no.: 06KC1
- 2032 History:** < Higa, Atsushi **Locality:** Nugesuku-ga/Okinawa/Japan (2006-**-**) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN Other strain no.: 06nu1
- 2033 History:** < Higa, Atsushi **Locality:** Nugesuku-ga/Okinawa/Japan (2006-**-**) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN Other strain no.: 06nu2
- 2034 History:** < Higa, Atsushi **Locality:** Nugesuku-ga/Okinawa/Japan (2006-**-**) **Isolator:** Higa,

Atsushi **Identified by:** Kamura, Shintoku (2006-**-**) **States:** Unialgal; Clonal; Non-axenic
Culture conditions: Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN **Other strain no.:** 06nu3

- 2035 **History:** < Higa, Atsushi **Locality:** Nugusuku-ga/Okinawa/Japan (2006-**-**) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN **Other strain no.:** 06nu4
- 2036 **History:** < Higa, Atsushi **Locality:** Nugusuku-ga/Okinawa/Japan (2006-**-**) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN **Other strain no.:** 06nu5
- 2037 **History:** < Higa, Atsushi **Locality:** Nugusuku-ga/Okinawa/Japan (2006-**-**) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN **Other strain no.:** 06nu6
- 2038 **History:** < Higa, Atsushi **Locality:** Nugusuku-ga/Okinawa/Japan (2006-**-**) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN **Other strain no.:** 06nu7
- 2039 **History:** < Higa, Atsushi **Locality:** Nugusuku-ga/Okinawa/Japan (2006-**-**) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN **Other strain no.:** 06nu8
- 2040 **History:** < Higa, Atsushi **Locality:** Nugusuku-ga/Okinawa/Japan (2006-**-**) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN **Other strain no.:** 06nu9
- 2041 **History:** < Higa, Atsushi **Locality:** Nugusuku-ga/Okinawa/Japan (2006-**-**) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN **Other strain no.:** 06nu10
- 2042 **History:** < Higa, Atsushi **Locality:** Nugusuku-ga/Okinawa/Japan (2006-**-**) **Isolator:** Higa, Atsushi **Identified by:** Kamura, Shintoku (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophytes differentiated from sporophytes in culture; Monoecious; CR+EN **Other strain no.:** 06nu11

Thorea hispida (Thore) Desvaux

- 1572 **History:** < Kawachi, Masanobu **Locality:** Inawashiro, Kawakami/Fukushima/Japan (2001-10-22) **Isolator:** Iwaki, Hiroyuki **Identified by:** Suzawa, Yuzuru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Monoecious; CR+EN **Other strain no.:** KAW-1 **Remarks:** Cryopreserved
- 1573 **History:** < Higa, Atsushi **Locality:** Sugao-numa/Ibaraki/Japan (2004-01-**) **Isolator:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s;

- 1-2 M **Habitat**: Freshwater **Characteristics**: Epilithic; Gametophyte; Dioecious; CR+EN **Other strain no.**: sg1 **Remarks**: Cryopreserved
- 1574 **History**: < Ishimoto, Miwa **Locality**: Inawashiro, Kawakami/Fukushima/Japan (2002-09-25) **Isolator**: Ishimoto, Miwa **Identified by**: Suzawa, Yuzuru **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat**: Freshwater **Characteristics**: Epilithic; Gametophyte; Monoecious; CR+EN **Other strain no.**: KAW-3 **Remarks**: Cryopreserved
- 1575 **History**: < Ishimoto, Miwa **Locality**: Inawashiro, Kawakami/Fukushima/Japan (2002-09-25) **Isolator**: Ishimoto, Miwa **Identified by**: Suzawa, Yuzuru **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat**: Freshwater **Characteristics**: Epilithic; Gametophyte; Monoecious; CR+EN **Other strain no.**: KAW-4 **Remarks**: Cryopreserved
- 1576 **History**: < Higa, Atsushi **Locality**: Higashinire River/Ibaraki/Japan (2004-05-16) **Isolator**: Higa, Atsushi **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat**: Freshwater **Characteristics**: Epilithic; Gametophyte; Dioecious; Female; CR+EN **Other strain no.**: HN51
- 1577 **History**: < Higa, Atsushi **Locality**: Inawashiro, Kawakami/Fukushima/Japan (2004-05-10) **Isolator**: Higa, Atsushi **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat**: Freshwater **Characteristics**: Epilithic; Gametophyte; Monoecious; CR+EN **Other strain no.**: kwu2 **Remarks**: Cryopreserved
- 1578 **History**: < Higa, Atsushi **Locality**: Inawashiro, Kawakami/Fukushima/Japan (2004-05-10) **Isolator**: Higa, Atsushi **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat**: Freshwater **Characteristics**: Epilithic; Gametophyte; Monoecious; CR+EN **Other strain no.**: kwu3 **Remarks**: Cryopreserved
- 1579 **History**: < Higa, Atsushi **Locality**: Inawashiro, Kawakami/Fukushima/Japan (2004-05-10) **Isolator**: Higa, Atsushi **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat**: Freshwater **Characteristics**: Epilithic; Gametophyte; Monoecious; CR+EN **Other strain no.**: kwd3 **Remarks**: Cryopreserved
- 1580 **History**: < Higa, Atsushi **Locality**: Inawashiro, Kawakami/Fukushima/Japan (2004-05-10) **Isolator**: Higa, Atsushi **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat**: Freshwater **Characteristics**: Epilithic; Gametophyte; Monoecious; CR+EN **Other strain no.**: kwu4 **Remarks**: Cryopreserved
- 1582 **History**: < Higa, Atsushi **Locality**: Inawashiro, Kawakami/Fukushima/Japan (2004-05-10) **Isolator**: Higa, Atsushi **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat**: Freshwater **Characteristics**: Epilithic; Gametophyte; Monoecious; CR+EN **Other strain no.**: kwd4 **Remarks**: Cryopreserved
- 1583 **History**: < Higa, Atsushi **Locality**: Inawashiro, Kawakami/Fukushima/Japan (2004-05-10) **Isolator**: Higa, Atsushi **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat**: Freshwater **Characteristics**: Epilithic; Gametophyte; Monoecious; CR+EN **Other strain no.**: kwd7 **Remarks**: Cryopreserved
- 1584 **History**: < Higa, Atsushi **Locality**: Sugao-numa/Ibaraki/Japan (2004-05-16) **Isolator**: Higa, Atsushi **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat**: Freshwater **Characteristics**: Epilithic; Gametophyte; Dioecious; CR+EN **Other strain no.**: sg3
- 2043 **History**: < Higa, Atsushi **Locality**: Sugao-numa/Ibaraki/Japan (2006-05-17) **Isolator**: Higa, Atsushi **Identified by**: Kumano, Shigeru (2006-05-17) **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat**: Freshwater **Characteristics**: Epilithic; Gametophyte; Dioecious; CR+EN **Other strain no.**: 06sg3
- 2044 **History**: < Higa, Atsushi **Locality**: Sugao-numa/Ibaraki/Japan (2006-05-17) **Isolator**: Higa, Atsushi **Identified by**: Kumano, Shigeru (2006-05-17) **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat**: Freshwater **Characteristics**:

Epilithic; Gametophyte; Dioecious; CR+EN **Other strain no.:** 06sg5

Thorea okadae Yamada

- 1483 History:** < Kawachi, Masanobu **Locality:** Naka River/Ibaraki/Japan (2000-**-**) **Isolator:** Iwaki, Hiroyuki **Identified by:** Kumano, Shigeru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU **Other strain no.:** NAK-8
- 1484 History:** < Kawachi, Masanobu **Locality:** Naka River/Ibaraki/Japan (2000-**-**) **Isolator:** Iwaki, Hiroyuki **Identified by:** Kumano, Shigeru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU **Other strain no.:** NAK-13 **Remarks:** Cryopreserved
- 1485 History:** < Kawachi, Masanobu **Locality:** Naka River/Ibaraki/Japan (2001-04-28) **Isolator:** Iwaki, Hiroyuki **Identified by:** Miyashita, Mamoru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU **Other strain no.:** NAK-21
- 1486 History:** < Kawachi, Masanobu **Locality:** Naka River/Ibaraki/Japan (2001-04-28) **Isolator:** Iwaki, Hiroyuki **Identified by:** Miyashita, Mamoru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU **Other strain no.:** NAK-23 **Remarks:** Cryopreserved
- 1487 History:** < Kawachi, Masanobu **Locality:** Naka River/Ibaraki/Japan (2000-**-**) **Isolator:** Iwaki, Hiroyuki **Identified by:** Kumano, Shigeru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU **Other strain no.:** NAK-6 **Remarks:** Cryopreserved
- 1488 History:** < Kawachi, Masanobu **Locality:** Naka River/Ibaraki/Japan (2000-**-**) **Isolator:** Iwaki, Hiroyuki **Identified by:** Kumano, Shigeru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU **Other strain no.:** NAK-7 **Remarks:** Cryopreserved
- 1489 History:** < Kawachi, Masanobu **Locality:** Naka River/Ibaraki/Japan (2001-05-11) **Isolator:** Iwaki, Hiroyuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU **Other strain no.:** NAK-31 **Remarks:** Cryopreserved
- 1490 History:** < Kawachi, Masanobu **Locality:** Kikuchi River/Kumamoto/Japan (2001-11-**) **Isolator:** Iwaki, Hiroyuki **Identified by:** Suzawa, Yuzuru; Iwaki, Hiroyuki **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU **Other strain no.:** KIK-1 **Remarks:** Cryopreserved
- 1491 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Nakagawa Bridge/Kumamoto/Japan (2002-04-19) **Isolator:** Ishimoto, Miwa **Identified by:** Miyashita, Mamoru; Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU **Other strain no.:** KIK-33
- 1492 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2002-04-19) **Isolator:** Ishimoto, Miwa **Identified by:** Miyashita, Mamoru; Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Dioecious; Female; VU **Other strain no.:** KIK-41 **Remarks:** Cryopreserved
- 1493 History:** < Ishimoto, Miwa **Locality:** Yahagi River/Aichi/Japan (2002-05-19) **Isolator:** Ishimoto, Miwa **Identified by:** Suzawa, Yuzuru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU **Other strain no.:** YAH-5

- 1494 History:** < Ishimoto, Miwa **Locality:** Yahagi River/Aichi/Japan (2002-05-19) **Isolator:** Ishimoto, Miwa **Identified by:** Suzawa, Yuzuru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15 °C ; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU **Other strain no.:** YAH-6 **Remarks:** Cryopreserved
- 1495 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Nakagawa Bridge/Kumamoto/Japan (2002-04-19) **Isolator:** Ishimoto, Miwa **Identified by:** Miyashita, Mamoru; Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU **Other strain no.:** KIK-25 **Remarks:** Cryopreserved
- 1496 History:** < Ishimoto, Miwa **Locality:** Yahagi River/Aichi/Japan (2001-**-**) **Isolator:** Ishimoto, Miwa **Identified by:** Suzawa, Yuzuru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15 °C ; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU **Other strain no.:** YAH-1 **Remarks:** Cryopreserved
- 1497 History:** < Ishimoto, Miwa **Locality:** Yahagi River/Aichi/Japan (2001-**-**) **Isolator:** Ishimoto, Miwa **Identified by:** Suzawa, Yuzuru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15 °C ; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU **Other strain no.:** YAH-2 **Remarks:** Cryopreserved
- 1498 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2002-04-19) **Isolator:** Ishimoto, Miwa **Identified by:** Miyashita, Mamoru; Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU **Other strain no.:** KIK-35 **Remarks:** Cryopreserved
- 1499 History:** < Ishimoto, Miwa **Locality:** Yahagi River/Aichi/Japan (2001-**-**) **Isolator:** Ishimoto, Miwa **Identified by:** Suzawa, Yuzuru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15 °C ; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU **Other strain no.:** YAH-3 **Remarks:** Cryopreserved
- 1500 History:** < Ishimoto, Miwa **Locality:** Yahagi River/Aichi/Japan (2002-05-19) **Isolator:** Ishimoto, Miwa **Identified by:** Suzawa, Yuzuru **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15 °C ; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU **Other strain no.:** YAH-4
- 1501 History:** < Ishimoto, Miwa **Locality:** Kikuchi River/Kumamoto/Japan (2002-04-19) **Isolator:** Ishimoto, Miwa **Identified by:** Miyashita, Mamoru; Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU **Other strain no.:** KIK-21 **Remarks:** Cryopreserved
- 1502 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-23) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU **Other strain no.:** KIK-48
- 1503 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU **Other strain no.:** KIK-53 **Remarks:** Cryopreserved
- 1504 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU **Other strain no.:** KIK-54 **Remarks:** Cryopreserved
- 1505 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal;

- Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater
Characteristics: Epilithic; Gametophyte; Dioecious; Female; VU **Other strain no.:** KIK-57
Remarks: Cryopreserved
- 1506 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU **Other strain no.:** KIK-58
Remarks: Cryopreserved
- 1507 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** KIK-67
- 1508 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** KIK-68 **Remarks:** Cryopreserved
- 1509 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** KIK-69 **Remarks:** Cryopreserved
- 1510 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** KIK-70 **Remarks:** Cryopreserved
- 1511 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** KIK-71 **Remarks:** Cryopreserved
- 1512 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** KIK-72 **Remarks:** Cryopreserved
- 1513 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** KIK-73 **Remarks:** Cryopreserved
- 1514 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** KIK-74 **Remarks:** Cryopreserved
- 1515 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** KIK-75 **Remarks:** Cryopreserved

- 1516 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** KIK-76 **Reference:** 142
- 1517 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** KIK-77 **Remarks:** Cryopreserved
- 1518 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** KIK-78 **Remarks:** Cryopreserved
- 1519 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** KIK-79 **Remarks:** Cryopreserved
- 1520 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** KIK-80 **Remarks:** Cryopreserved
- 1521 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** KIK-81 **Remarks:** Cryopreserved
- 1522 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** KIK-82 **Remarks:** Cryopreserved
- 1523 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** KIK-83 **Remarks:** Cryopreserved
- 1524 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Bunda Bridge/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** KIK-84 **Remarks:** Cryopreserved
- 1525 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Kikuchigawa Bridge/Kumamoto/Japan (2003-04-23) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU **Other strain no.:** KIK-49
- 1526 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Takashima Bridge/Kumamoto/Japan (2003-04-23) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU **Other strain no.:** KIK-50

- 1527 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Takashima Bridge/Kumamoto/Japan (2003-04-23) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU **Other strain no.:** KIK-51
- 1528 History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2004-01-24) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU **Other strain no.:** k2 **Remarks:** Cryopreserved
- 1529 History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2004-01-24) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU **Other strain no.:** k9 **Remarks:** Cryopreserved
- 1530 History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2004-01-24) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU **Other strain no.:** k10 **Remarks:** Cryopreserved
- 1531 History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2004-01-24) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU **Other strain no.:** k14 **Remarks:** Cryopreserved
- 1532 History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2004-01-24) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU **Other strain no.:** k22 **Remarks:** Cryopreserved
- 1533 History:** < Ishimoto, Miwa **Locality:** Naka River/Ibaraki/Japan (2003-05-29) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15 °C ; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU **Other strain no.:** NAK-32 **Remarks:** Cryopreserved
- 1534 History:** < Higa, Atsushi **Locality:** Ohyodo River, Dainomaru Bridge/Miyazaki/Japan (2004-01-22) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU **Other strain no.:** oh8 **Remarks:** Cryopreserved
- 1535 History:** < Higa, Atsushi **Locality:** Ohyodo River, Dainomaru Bridge/Miyazaki/Japan (2004-01-22) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU **Other strain no.:** oh13
- 1536 History:** < Higa, Atsushi **Locality:** Sendai River, Shimomasaki Bridge/Miyazaki/Japan (2004-01-20) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU **Other strain no.:** s2 **Remarks:** Cryopreserved
- 1537 History:** < Higa, Atsushi **Locality:** Sendai River, Shimomasaki Bridge/Miyazaki/Japan (2004-01-20) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU **Other strain**

- no.: s6 **Remarks:** Cryopreserved
- 1538 History:** < Higa, Atsushi **Locality:** Sendai River, Shimomasaki Bridge/Miyazaki/Japan (2004-01-20) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU **Other strain no.:** s7 **Remarks:** Cryopreserved
- 1539 History:** < Higa, Atsushi **Locality:** Sendai River, Shimomasaki Bridge/Miyazaki/Japan (2004-01-20) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU **Other strain no.:** s11 **Remarks:** Cryopreserved
- 1540 History:** < Higa, Atsushi **Locality:** Sendai River, Shimomasaki Bridge/Miyazaki/Japan (2004-01-20) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU **Other strain no.:** s12 **Remarks:** Cryopreserved
- 1541 History:** < Higa, Atsushi **Locality:** Sendai River, Shimomasaki Bridge/Miyazaki/Japan (2004-01-20) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU **Other strain no.:** s13 **Remarks:** Cryopreserved
- 1542 History:** < Higa, Atsushi **Locality:** Sendai River, Shimomasaki Bridge/Miyazaki/Japan (2004-01-20) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU **Other strain no.:** s14 **Remarks:** Cryopreserved
- 1543 History:** < Higa, Atsushi **Locality:** Chikugo River, Chikugo Bridge/Fukuoka/Japan (2004-01-25) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU **Other strain no.:** chh2 **Remarks:**
- 1544 History:** < Higa, Atsushi **Locality:** Chikugo River, Chikugo Bridge/Fukuoka/Japan (2004-01-25) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU **Other strain no.:** ch2 **Remarks:** Cryopreserved
- 1545 History:** < Higa, Atsushi **Locality:** Yakata River, Ukishima Bridge/Kumamoto/Japan (2004-01-24) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU **Other strain no.:** yg1 **Remarks:** Cryopreserved
- 1546 History:** < Higa, Atsushi **Locality:** Yakata River, Ukishima Bridge/Kumamoto/Japan (2004-01-24) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU **Other strain no.:** yg9 **Remarks:**
- 1547 History:** < Ishimoto, Miwa **Locality:** Yabe River/Fukuoka/Japan (2002-11-15) **Isolator:** Ishimoto, Miwa **Identified by:** Miyashita, Mamoru; Kawachi, Masanobu; Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU **Other strain no.:** YBE-3 **Remarks:** Cryopreserved
- 1548 History:** < Higa, Atsushi **Locality:** Yabe River, Funagoyaonsen Bridge/Fukuoka/Japan (2004-01-20) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:**

- Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU **Other strain no.:** YB2
- 1549 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Takashima Bridge/Kumamoto/Japan (2003-04-22) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU **Other strain no.:** KIK-52
- 1550 History:** < Ishimoto, Miwa **Locality:** Kikuchi River/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Dioecious; VU **Other strain no.:** KIK-59 **Remarks:** Cryopreserved
- 1551 History:** < Ishimoto, Miwa **Locality:** Kikuchi River/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Dioecious; VU **Other strain no.:** KIK-60 **Remarks:** Cryopreserved
- 1552 History:** < Ishimoto, Miwa **Locality:** Kikuchi River/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Dioecious; Female; VU **Other strain no.:** KIK-61 **Remarks:** Cryopreserved
- 1553 History:** < Ishimoto, Miwa **Locality:** Kikuchi River, Yamaga Weir/Kumamoto/Japan (2003-04-24) **Isolator:** Ishimoto, Miwa **Identified by:** Higa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Dioecious; VU **Other strain no.:** KIK-65
- 1554 History:** < Higa, Atsushi **Locality:** Amori River, Wakaayu Bridge/Kagoshima/Japan (2004-01-23) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU **Other strain no.:** AM2
- 1555 History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2004-01-24) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU **Other strain no.:** k5 **Remarks:** Cryopreserved
- 1556 History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2004-01-24) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU **Other strain no.:** k8 **Remarks:** Cryopreserved
- 1558 History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2004-01-24) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU **Other strain no.:** k12 **Remarks:** Cryopreserved
- 1559 History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2004-01-24) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU **Other strain no.:** k18
- 1560 History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2004-01-24) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU **Other strain no.:** k20 **Remarks:** Cryopreserved

- 1561 History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2004-01-24) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 15°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU **Other strain no.:** k23 **Remarks:** Cryopreserved
- 1562 History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2004-01-24) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU **Other strain no.:** k25 **Remarks:** Cryopreserved
- 1563 History:** < Higa, Atsushi **Locality:** Ohyodo River, Dainomaru Bridge/Miyazaki/Japan (2004-01-22) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU **Other strain no.:** oh6 **Remarks:** Cryopreserved
- 1564 History:** < Higa, Atsushi **Locality:** Ohyodo River, Dainomaru Bridge/Miyazaki/Japan (2004-01-22) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU **Other strain no.:** oh7 **Remarks:** Cryopreserved
- 1565 History:** < Higa, Atsushi **Locality:** Ohyodo River, Dainomaru Bridge/Miyazaki/Japan (2004-01-22) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU **Other strain no.:** oh23 **Remarks:** Cryopreserved
- 1566 History:** < Higa, Atsushi **Locality:** Sendai River, Shimomasaki Bridge/Miyazaki/Japan (2004-01-20) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU **Other strain no.:** s5 **Remarks:** Cryopreserved
- 1568 History:** < Higa, Atsushi **Locality:** Chikugo River, Chikugo Bridge/Fukuoka/Japan (2004-01-25) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU **Other strain no.:** ch13 **Remarks:** Cryopreserved
- 1569 History:** < Higa, Atsushi **Locality:** Chikugo River, Chikugo Bridge/Fukuoka/Japan (2004-01-25) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU **Other strain no.:** ch15
- 1570 History:** < Higa, Atsushi **Locality:** Chikugo River, Chikugo Bridge/Fukuoka/Japan (2004-01-25) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU **Other strain no.:** ch21 **Remarks:** Cryopreserved
- 1571 History:** < Higa, Atsushi **Locality:** Yakata River, Ukishima Bridge/Kumamoto/Japan (2004-01-24) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU **Other strain no.:** yg4 **Remarks:** Cryopreserved
- 1773 History:** < Higa, Atsushi **Locality:** Amori River, Wakaayu Bridge/Kagoshima/Japan (2004-01-23) **Isolator:** Higa, Atsushi **Identified by:** Suzawa, Yuzuru (2004-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater

- 1799** **History:** < Higa, Atsushi **Locality:** Naka River/Ibaraki/Japan (2003-05-**) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** IB26 **Remarks:** Cryopreserved
- 1800** **History:** < Higa, Atsushi **Locality:** Naka River/Ibaraki/Japan (2003-05-**) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** IB27 **Remarks:** Cryopreserved
- 1801** **History:** < Higa, Atsushi **Locality:** Naka River/Ibaraki/Japan (2003-05-**) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** IB28 **Remarks:** Cryopreserved
- 1802** **History:** < Higa, Atsushi **Locality:** Naka River/Ibaraki/Japan (2003-05-**) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** IB29 **Remarks:** Cryopreserved
- 1803** **History:** < Higa, Atsushi **Locality:** Naka River/Ibaraki/Japan (2003-05-**) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** IB30 **Remarks:** Cryopreserved
- 2045** **History:** < Higa, Atsushi **Locality:** Yasumuro River/Hyogo/Japan (2006-01-24) **Isolator:** Higa, Atsushi **Identified by:** Sugino, Nobuyoshi (2006-01-24) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU **Other strain no.:** ym1 **Remarks:** Cryopreserved
- 2046** **History:** < Higa, Atsushi **Locality:** Yasumuro River/Hyogo/Japan (2006-01-24) **Isolator:** Higa, Atsushi **Identified by:** Sugino, Nobuyoshi (2006-01-24) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU **Other strain no.:** ym2 **Remarks:** Cryopreserved
- 2047** **History:** < Higa, Atsushi **Locality:** Yasumuro River/Hyogo/Japan (2006-01-24) **Isolator:** Higa, Atsushi **Identified by:** Sugino, Nobuyoshi (2006-01-24) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU **Other strain no.:** ym3 **Remarks:** Cryopreserved
- 2048** **History:** < Higa, Atsushi **Locality:** Yasumuro River/Hyogo/Japan (2006-01-24) **Isolator:** Higa, Atsushi **Identified by:** Sugino, Nobuyoshi (2006-01-24) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU **Other strain no.:** ym6 **Remarks:** Cryopreserved
- 2049** **History:** < Higa, Atsushi **Locality:** Yasumuro River/Hyogo/Japan (2006-01-24) **Isolator:** Higa, Atsushi **Identified by:** Sugino, Nobuyoshi (2006-01-24) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU **Other strain no.:** ym8 **Remarks:** Cryopreserved
- 2050** **History:** < Higa, Atsushi **Locality:** Yasumuro River/Hyogo/Japan (2006-01-24) **Isolator:** Higa, Atsushi **Identified by:** Sugino, Nobuyoshi (2006-01-24) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; VU **Other strain no.:** ym9 **Remarks:** Cryopreserved
- 2051** **History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-30) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU **Other strain no.:** 06k1
- 2052** **History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-30) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater

- Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU **Other strain no.:** 06k3
Remarks: Cryopreserved
- 2053 History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-30) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU **Other strain no.:** 06k4 **Remarks:** Cryopreserved
- 2054 History:** < Higa, Atsushi **Locality:** Kuma River, Meuba Bridge/Kumamoto/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-30) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU **Other strain no.:** 06k6 **Remarks:** Cryopreserved
- 2055 History:** < Higa, Atsushi **Locality:** Sendai River, Aratakenjin Bridge/Kagoshima/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-29) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU **Other strain no.:** AT1 **Remarks:** Cryopreserved
- 2056 History:** < Higa, Atsushi **Locality:** Sendai River, Aratakenjin Bridge/Kagoshima/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-29) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU **Other strain no.:** AT2 **Remarks:** Cryopreserved
- 2057 History:** < Higa, Atsushi **Locality:** Sendai River, Aratakenjin Bridge/Kagoshima/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-29) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** ATC2-1 **Remarks:** Cryopreserved
- 2058 History:** < Higa, Atsushi **Locality:** Sendai River, Aratakenjin Bridge/Kagoshima/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-29) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** ATC2-2 **Remarks:** Cryopreserved
- 2059 History:** < Higa, Atsushi **Locality:** Sendai River, Aratakenjin Bridge/Kagoshima/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-29) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU **Other strain no.:** AT3 **Remarks:** Cryopreserved
- 2060 History:** < Higa, Atsushi **Locality:** Sendai River, Aratakenjin Bridge/Kagoshima/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-29) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU **Other strain no.:** AT4 **Remarks:** Cryopreserved
- 2061 History:** < Higa, Atsushi **Locality:** Sendai River, Aratakenjin Bridge/Kagoshima/Japan (2006-03-30) **Isolator:** Higa, Atsushi **Identified by:** Kumano, Shigeru (2006-03-29) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Female; VU **Other strain no.:** AT5 **Remarks:** Cryopreserved
- 2062 History:** < Higa, Atsushi **Locality:** Yasumuro River/Hyogo/Japan (2006-05-25) **Isolator:** Higa, Atsushi **Identified by:** Sugino, Nobuyoshi (2006-05-25) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** 06ym1 **Remarks:** Cryopreserved
- 2063 History:** < Higa, Atsushi **Locality:** Yasumuro River/Hyogo/Japan (2006-05-25) **Isolator:** Higa,

- Atsushi **Identified by:** Sugino, Nobuyoshi (2006-05-25) **States:** Unialgal; Clonal; Non-axenic
Culture conditions: Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** 06ym2 **Remarks:** Cryopreserved
- 2064 History:** < Higa, Atsushi **Locality:** Yasumuro River/Hyogo/Japan (2006-05-25) **Isolator:** Higa, Atsushi **Identified by:** Sugino, Nobuyoshi (2006-03-30) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** 06ym3 **Remarks:** Cryopreserved
- 2065 History:** < Higa, Atsushi **Locality:** Yasumuro River/Hyogo/Japan (2006-05-25) **Isolator:** Higa, Atsushi **Identified by:** Sugino, Nobuyoshi (2006-05-25) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** 06ym4 **Remarks:** Cryopreserved
- 2066 History:** < Higa, Atsushi **Locality:** Yasumuro River/Hyogo/Japan (2006-05-25) **Isolator:** Higa, Atsushi **Identified by:** Sugino, Nobuyoshi (2006-05-25) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** 06ym5 **Remarks:** Cryopreserved
- 2067 History:** < Higa, Atsushi **Locality:** Yasumuro River/Hyogo/Japan (2006-05-25) **Isolator:** Higa, Atsushi **Identified by:** Sugino, Nobuyoshi (2006-03-30) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** 06ym6 **Remarks:** Cryopreserved
- 2068 History:** < Higa, Atsushi **Locality:** Yasumuro River/Hyogo/Japan (2006-05-25) **Isolator:** Higa, Atsushi **Identified by:** Sugino, Nobuyoshi (2006-05-25) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** 06ym7 **Remarks:** Cryopreserved
- 2069 History:** < Higa, Atsushi **Locality:** Yasumuro River/Hyogo/Japan (2006-05-25) **Isolator:** Higa, Atsushi **Identified by:** Sugino, Nobuyoshi (2006-05-25) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** 06ym8 **Remarks:** Cryopreserved
- 2070 History:** < Higa, Atsushi **Locality:** Yasumuro River/Hyogo/Japan (2006-05-25) **Isolator:** Higa, Atsushi **Identified by:** Sugino, Nobuyoshi (2006-03-31) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** 06ym9 **Remarks:** Cryopreserved
- 2071 History:** < Higa, Atsushi **Locality:** Yasumuro River/Hyogo/Japan (2006-05-25) **Isolator:** Higa, Atsushi **Identified by:** Sugino, Nobuyoshi (2006-05-25) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** 06ym10 **Remarks:** Cryopreserved
- 2072 History:** < Higa, Atsushi **Locality:** Yasumuro River/Hyogo/Japan (2006-05-25) **Isolator:** Higa, Atsushi **Identified by:** Sugino, Nobuyoshi (2006-05-25) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** 06ym11 **Remarks:** Cryopreserved
- 2073 History:** < Higa, Atsushi **Locality:** Yasumuro River/Hyogo/Japan (2006-05-25) **Isolator:** Higa, Atsushi **Identified by:** Sugino, Nobuyoshi (2006-03-31) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Sporophyte; Dioecious; VU **Other strain no.:** 06ym12 **Remarks:** Cryopreserved
- 2074 History:** < Higa, Atsushi **Locality:** Yasumuro River/Hyogo/Japan (2006-05-25) **Isolator:** Higa, Atsushi **Identified by:** Sugino, Nobuyoshi (2006-05-25) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** Bold 3N; 20°C; 3-12µmol/m²/s; 1-2 M **Habitat:** Freshwater **Characteristics:** Epilithic; Gametophyte; Dioecious; Male; VU **Other strain no.:** 06ym13 **Remarks:** Cryopreserved

TOGULA : Dinophyceae*Togula britannica* (Herdman) Jørgensen, Murray et Daugbjerg

Syn. *Amphidinium britannicum* (Herdmann) Lebour

- 405 History:** < Sawaguchi, Tomohiro **Locality:** Hasaki/Ibaraki/Japan (1987-05-09) **Isolator:** Sawaguchi, Tomohiro **Identified by:** Sawaguchi, Tomohiro **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20 °C ; 40-50 μ mol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Benthic **Other strain no.:** HASS-1 **Remarks:** Fragile species to transportation stresses

TOLYPOTHRIX : Cyanophyceae

Tolyphothrix distorta Kützing ex Bornet et Flahault var. *symplocoidea* Hansgirg

- 2571 History:** < IAM (2007) < BIU (UTEX; 1961) **Other collection strain no.:** IAM M- 98; UTEX 424; CCAP B 1482/2; SAG B 1482-2; UTCC B 80 **Locality:** Netherland **Isolator:** Manten, A.; Katayama, Mitsunori (Re-isolation) **States:** Unialgal; Clonal; Axenic[2012 Mar] **Culture conditions:** MDM (agar); 20°C; 4-6 μ mol/m²/s; 3 M **Habitat:** (Soil)

Tolyphothrix tenuis Kützing ex Bornet et Flahault

- 37 History:** < IAM **Other collection strain no.:** IAM M-29; PCC 7101 **Locality:** Borneo/Indonesia **Isolator:** Watanabe, Atsushi **Identified by:** Negoro, Ken-ichiro; Watanabe, Makoto M. (Reidentify) **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** MDM (agar); 20°C; 4-10 μ mol/m²/s; 4 M (25°C; 70-80 μ mol/m²/s) **Characteristics:** Heterotrophic; Nitrogen fixation; Chromatic adaptation; Material for studying on phycobilin production **References:** 63, 97, 98, 99, 100, 101, 103, 104, 141, 181, 182, 183, 184, 205, 235, 407, 567, 589, 912, 1093, 1113, 1123, 1124, 1125, 1126, 1127, 1128, 1129, 1130, 1132, 1254 **Remarks:** Cryopreserved

- 2135 History:** < IAM (2007) < Tsuzuki, Mikio (2005) < IAM (1994) < Ishikawa, Masako **Other collection strain no.:** IAM M-287 (=M-110) **Locality:** (1960-06-**) **Isolator:** Ishikawa, Masako **Identified by:** Maruyama, Ko **States:** Unialgal; Clonal; Axenic[2012 Feb] **Culture conditions:** BG-11 (agar); 20°C; 13-18 μ mol/m²/s; 3 M

TRACHELOMONAS : Euglenophyceae

Trachelomonas sp.

- 2299 History:** < Suda, Shoichiro **Locality:** Ozegahara/Gunma/Japan (1983-08-28) **Isolator:** Suda, Shoichiro **Identified by:** Suda, Shoichiro **States:** Unialgal **Culture conditions:** AF-6/2; 20°C; 15-22 μ mol/m²/s; 2 M **Habitat:** Freshwater (Bog water) **Other strain no.:** OZ-4 Eug8

TREBOUXIA : Trebouxiophyceae

Trebouxia anticipata Archibald

- 1271 History:** < Ohmura, Yoshihito **Locality:** Tsukuba-san Shrine/Ibaraki/Japan (2002-01-19) **Isolator:** Ohmura, Yoshihito **Identified by:** Takeshita, Shunji **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 μ mol/m²/s; 6 M (25°C; 70-80 μ mol/m²/s) **Habitat:** Terrestrial (The lichen Punctelia rudecta on a stone column) **Characteristics:** Symbiotic **Other strain no.:** AYO4776 **Remarks:** Cryopreserved

- 1272 History:** < Ohmura, Yoshihito **Locality:** Tsukuba-san Shrine/Ibaraki/Japan (2002-01-19) **Isolator:** Ohmura, Yoshihito **Identified by:** Takeshita, Shunji **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 μ mol/m²/s; 6 M (25°C; 70-80 μ mol/m²/s) **Habitat:** Terrestrial (The lichen Punctelia rudecta on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4780 **Remarks:** Cryopreserved

- 1273 History:** < Ohmura, Yoshihito **Locality:** Chikurin-ji Temple/Hiroshima/Japan (2002-03-24) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15 μ mol/m²/s; 6 M (25°C; 70-80 μ mol/m²/s) **Habitat:** Terrestrial (The lichen Flavoparmelia caperata on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4870 **Remarks:** Cryopreserved

Trebouxia arboricola Puymaly

- 1274 History:** < Ohmura, Yoshihito **Locality:** Tsukuba-san Shrine/Ibaraki/Japan (2002-01-19) **Isolator:** Ohmura, Yoshihito **Identified by:** Takeshita, Shunji **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen Ramalina yasudae on a stone column) **Characteristics:** Symbiotic **Other strain no.:** AYO4775 **Remarks:** Cryopreserved
- 1275 History:** < Ohmura, Yoshihito **Locality:** Tsukuba-san Shrine/Ibaraki/Japan (2002-01-19) **Isolator:** Ohmura, Yoshihito **Identified by:** Takeshita, Shunji **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen Ramalina yasudae on a stone column) **Characteristics:** Symbiotic **Other strain no.:** AYO4779 **Remarks:** Cryopreserved
- 1276 History:** < Ohmura, Yoshihito **Locality:** Mt.Fuji, Okuniwa/Yamanashi/Japan (2003-05-05) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen Usnea longissima on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO5316 **Remarks:** Cryopreserved
- 1277 History:** < Ohmura, Yoshihito **Locality:** Mt.Fuji, Ochudo/Yamanashi/Japan (2003-05-05) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen Usnea trichodeoides on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO5321 **Remarks:** Cryopreserved
- Trebouxia corticola* (Archibald) Gärtnér
- 1278 History:** < Ohmura, Yoshihito **Locality:** Tsukuba-san Shrine/Ibaraki/Japan (2002-01-19) **Isolator:** Ohmura, Yoshihito **Identified by:** Takeshita, Shunji **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen Usnea bismolliuscula on a stone column) **Characteristics:** Symbiotic **Other strain no.:** AYO4774 **Remarks:** Cryopreserved
- 1279 History:** < Ohmura, Yoshihito **Locality:** Tsukuba-san Shrine/Ibaraki/Japan (2002-01-19) **Isolator:** Ohmura, Yoshihito **Identified by:** Takeshita, Shunji **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen Rimelia clavulifera on a stone column) **Characteristics:** Symbiotic **Other strain no.:** AYO4777 **Remarks:** Cryopreserved
- 1280 History:** < Ohmura, Yoshihito **Locality:** Suki, Sakanoshita/Miyazaki/Japan (2002-02-20) **Isolator:** Ohmura, Yoshihito **Identified by:** Takeshita, Shunji **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen Ramalina peruviana on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4860 **Remarks:** Cryopreserved
- 1281 History:** < Ohmura, Yoshihito **Locality:** Chikurin-ji Temple/Hiroshima/Japan (2002-03-24) **Isolator:** Ohmura, Yoshihito **Identified by:** Takeshita, Shunji **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen Usnea baileyi on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4863 **Remarks:** Cryopreserved
- 1282 History:** < Ohmura, Yoshihito **Locality:** Chikurin-ji Temple/Hiroshima/Japan (2002-03-24) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen Usnea rubicunda on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4864 **Remarks:** Cryopreserved
- 1283 History:** < Ohmura, Yoshihito **Locality:** Chikurin-ji Temple/Hiroshima/Japan (2002-03-24) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen Usnea ceratina on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4865 **Remarks:** Cryopreserved
- 1284 History:** < Ohmura, Yoshihito **Locality:** Chikurin-ji Temple/Hiroshima/Japan (2002-03-24)

- Isolator:** Ohmura, Yoshihito **Identified by:** Takeshita, Shunji **States:** Unialgal; Clonal; Axenic
Culture conditions: C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen *Usnea ceratina* on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4867 **Remarks:** Cryopreserved
- 1286 History:** < Ohmura, Yoshihito **Locality:** Hiroshima University/Hiroshima/Japan (2002-03-26) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen *Dirinaria applanata* on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4882 **Remarks:** Cryopreserved
- 1287 History:** < Ohmura, Yoshihito **Locality:** Hiroshima University/Hiroshima/Japan (2002-03-26) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen *Rimelia clavulifera* on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4884 **Remarks:** Cryopreserved
- 1288 History:** < Ohmura, Yoshihito **Locality:** Mt.Fuji, Aokigahara/Yamanashi/Japan (2003-05-04) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen *Usnea rubrotincta* on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO5330 **Remarks:** Cryopreserved
- 1446 History:** < Ohmura, Yoshihito **Locality:** Shimizu/Shizuoka/Japan (2003-10-20) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen *Parmotrema tinctorum* on a gravestone) **Characteristics:** Symbiotic **Gene data:** ITS rRNA (AB177821) **Other strain no.:** AYO5357A **Reference:** 789 **Remarks:** Cryopreserved
- 1447 History:** < Ohmura, Yoshihito **Locality:** Zui-un-in Temple/Shizuoka/Japan (2003-10-20) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen *Parmotrema tinctorum* on a gravestone) **Characteristics:** Symbiotic **Gene data:** ITS rRNA (AB177822) **Other strain no.:** AYO5357B **Reference:** 789 **Remarks:** Cryopreserved
- 1448 History:** < Ohmura, Yoshihito **Locality:** Shimizu/Shizuoka/Japan (2003-10-20) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen *Parmotrema tinctorum* on a gravestone) **Characteristics:** Symbiotic **Gene data:** ITS rRNA (AB177823) **Other strain no.:** AYO5357C **Reference:** 789 **Remarks:** Cryopreserved
- 1449 History:** < Ohmura, Yoshihito **Locality:** Shimizu/Shizuoka/Japan (2003-10-20) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen *Parmotrema tinctorum* on a gravestone) **Characteristics:** Symbiotic **Gene data:** ITS rRNA (AB177825) **Other strain no.:** AYO5361A **Reference:** 789 **Remarks:** Cryopreserved
- 1450 History:** < Ohmura, Yoshihito **Locality:** Shimizu/Shizuoka/Japan (2003-10-20) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen *Parmotrema tinctorum* on a gravestone) **Characteristics:** Symbiotic **Gene data:** ITS rRNA (AB177826) **Other strain no.:** AYO5361B **Reference:** 789 **Remarks:** Cryopreserved
- 1451 History:** < Ohmura, Yoshihito **Locality:** Shimizu/Shizuoka/Japan (2003-10-20) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen *Parmotrema tinctorum* on a gravestone) **Characteristics:** Symbiotic **Gene data:** ITS rRNA (AB177828) **Other strain no.:** AYO5372 **Reference:** 789 **Remarks:** Cryopreserved
- 1452 History:** < Ohmura, Yoshihito **Locality:** Shimizu/Shizuoka/Japan (2003-10-21) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen

Parmotrema tinctorum on a gravestone) **Characteristics:** Symbiotic **Gene data:** ITS rRNA (AB177829) **Other strain no.:** AYO5375A **Reference:** 789 **Remarks:** Cryopreserved

- 1453 **History:** < Ohmura, Yoshihito **Locality:** Shimizu/Shizuoka/Japan (2003-10-21) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen Parmotrema tinctorum on a gravestone) **Characteristics:** Symbiotic **Gene data:** ITS rRNA (AB177830) **Other strain no.:** AYO5375B **Reference:** 789 **Remarks:** Cryopreserved
- 1454 **History:** < Ohmura, Yoshihito **Locality:** Shimizu/Shizuoka/Japan (2003-10-21) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen Parmotrema tinctorum on a gravestone) **Characteristics:** Symbiotic **Gene data:** ITS rRNA (AB177831) **Other strain no.:** AYO5376 **Reference:** 789 **Remarks:** Cryopreserved
- 1455 **History:** < Ohmura, Yoshihito **Locality:** Shimizu/Shizuoka/Japan (2003-10-21) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen Parmotrema tinctorum on a gravestone) **Characteristics:** Symbiotic **Gene data:** ITS rRNA (AB177832) **Other strain no.:** AYO5380 **Reference:** 789 **Remarks:** Cryopreserved

Trebouxia erici Ahmadjian

- 2185 **History:** < IAM (2007) < BIU (UTEX; 1961) **Other collection strain no.:** IAM C-116; UTEX 912 **Locality:** Massachusetts/U.S.A. **Isolator:** Ahmadjian, V. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat:** Terrestrial (The lichen Cladonia cristatella) **Characteristics:** Symbiotic **Reference:** 18 **Remarks:** Cryopreserved
- 2186 **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-593 (=C-188); UTEX 910 **Locality:** Massachusetts/U.S.A. **Isolator:** Ahmadjian, V. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat:** Terrestrial (The lichen Cladonia cristatella) **Characteristics:** Symbiotic **Gene data:** Actin (AB080314) **References:** 18, 1224 **Remarks:** Cryopreserved

Trebouxia glomerata (Waren) Ahmadjian

- 2187 **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-594 (=C-115); UTEX 896 **Locality:** Massachusetts/U.S.A. **Isolator:** Ahmadjian, V. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat:** Terrestrial (The lichen Stereocaulon pileatum) **Characteristics:** Symbiotic **Reference:** 18 **Remarks:** Cryopreserved
- 2188 **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM C-595 (=C-187); UTEX 897 **Locality:** Massachusetts/U.S.A. **Isolator:** Ahmadjian, V. **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Habitat:** Terrestrial (The lichen Stereocaulon pileatum) **Characteristics:** Symbiotic **Reference:** 18 **Remarks:** Cryopreserved

Trebouxia higginsiae (Hildreth et Ahmadjian) Gärtner

- 1289 **History:** < Ohmura, Yoshihito **Locality:** Tsukuba-san Shrine/Ibaraki/Japan (2002-01-19) **Isolator:** Ohmura, Yoshihito **Identified by:** Takeshita, Shunji **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen Parmotrema tinctorum on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4781 **Remarks:** Cryopreserved
- 1290 **History:** < Ohmura, Yoshihito **Locality:** Tsukuba-san Shrine/Ibaraki/Japan (2002-01-19) **Isolator:** Ohmura, Yoshihito **Identified by:** Takeshita, Shunji **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen Dirinaria applanata on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4782 **Remarks:** Cryopreserved
- 1291 **History:** < Ohmura, Yoshihito **Locality:** Chikurin-ji Temple/Hiroshima/Japan (2002-03-24) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen Parmotrema tinctorum on bark) **Characteristics:** Symbiotic **Other strain**

no.: AYO4866 **Remarks:** Cryopreserved

- 1292 **History:** < Ohmura, Yoshihito **Locality:** Hiroshima University/Hiroshima/Japan (2002-03-26) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen Myelochroa aurulenta on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4877 **Remarks:** Cryopreserved

- 1293 **History:** < Ohmura, Yoshihito **Locality:** Hiroshima University/Hiroshima/Japan (2002-03-26) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen Parmotrema tinctorum on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4879 **Remarks:** Cryopreserved

- 1294 **History:** < Ohmura, Yoshihito **Locality:** Hiroshima University/Hiroshima/Japan (2002-03-26) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen Dirinaria applanata on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4880 **Remarks:** Cryopreserved

- 1295 **History:** < Ohmura, Yoshihito **Locality:** Hiroshima University/Hiroshima/Japan (2002-03-26) **Isolator:** Ohmura, Yoshihito **Identified by:** Takeshita, Shunji **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen Parmotrema tinctorum on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4887 **Remarks:** Cryopreserved

- 1296 **History:** < Ohmura, Yoshihito **Locality:** Hiroshima University/Hiroshima/Japan (2002-03-26) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen Parmotrema austrosinense on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4885 **Remarks:** Cryopreserved

Trebouxia showmanii (Hildreth et Ahmadjian) Gärtner

- 1297 **History:** < Ohmura, Yoshihito **Locality:** Tsukuba-san Shrine/Ibaraki/Japan (2002-01-19) **Isolator:** Ohmura, Yoshihito **Identified by:** Takeshita, Shunji **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen Xanthoparmelia coreana on a stone wall) **Characteristics:** Symbiotic **Other strain no.:** AYO4778 **Remarks:** Cryopreserved

Trebouxia sp.

- 2349 **History:** < Ohmura, Yoshihito **Locality:** Chikurin-ji Temple/Hiroshima/Japan (2002-03-24) **Isolator:** Ohmura, Yoshihito **Identified by:** Ohmura, Yoshihito **States:** Unialgal; Clonal; Axenic **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 6 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (The lichen Heterodermia obscurata on bark) **Characteristics:** Symbiotic **Other strain no.:** AYO4869 **Remarks:** Cryopreserved

TRENTEPOHLIA : Ulvophyceae

Trentepohlia sp.

- 967 **History:** < Hagiwara, Tomiji **Locality:** Nozawa Hot Spring/Nagano/Japan (1989-12-28) **Isolator:** Hagiwara, Tomiji **Identified by:** Hagiwara, Tomiji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 22-27µmol/m²/s; 6 M **Habitat:** Terrestrial (Concrete bank) **Other strain no.:** TP-5

TREPOMONAS : Trepomonadea

Trepomonas sp.

- 1444 **History:** < TKB **Locality:** Hyotaro-ike Pond/Ibaraki/Japan (2003-05-26) **Isolator:** Yubuki, Naoji **Identified by:** Yubuki, Naoji **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** UYTS +

Rice; 15°C; 0µmol/m²/s; 20 D **Habitat:** Freshwater (Pond water) **Characteristics:** Offensive taste and odor; Heterotrophic **Other strain no.:** TKB-058 (NY0141) **Reference:** 137

TREUBARIA : Chlorophyceae

Treubaria triappendiculata Bernard

- 394 History:** < Kasai, Fumie **Locality:** Lake Kasumigaura/Ibaraki/Japan (1983-10-04) **Isolator:** Kasai, Fumie **Identified by:** Niiyama, Yuko **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 4-10µmol/m²/s; 2 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Lake water) **Other strain no.:** F67-5 **Reference:** 567

TRICERATIUM : Bacillariophyceae

Triceratium dubium Brightwell

- 556 History:** < Ono, Sachiko **Locality:** Okinawa/Japan (1990-**-**) **Isolator:** Ono, Sachiko **Identified by:** Ono, Sachiko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 40-50µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Other strain no.:** No.20 **Reference:** 877

TRIPLOCERAS : Charophyceae

Triploceras gracile Bailey

- 789 History:** < Kasai, Fumie **Locality:** 2 km east of Melaka/Malaysia (1985-08-19) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic **Other strain no.:** 85-28-1 **Reference:** 240

- 790 History:** < Kasai, Fumie **Locality:** 2 km east of Melaka/Malaysia (1985-08-19) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic **Other strain no.:** 85-28-2 **Reference:** 240

- 791 History:** < Kasai, Fumie **Locality:** 2 km east of Melaka/Malaysia (1985-08-19) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic **Other strain no.:** 85-28-3 **Reference:** 240

- 792 History:** < Kasai, Fumie **Locality:** 2 km east of Melaka/Malaysia (1985-08-19) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Paddy soil) **Characteristics:** Homothallic **Other strain no.:** 85-28-4 **Reference:** 240

- 793 History:** < Kasai, Fumie **Locality:** Higashihiroshima/Hiroshima/Japan (1983-10-19) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Heterothallic; Mating type(+) **Other strain no.:** 83-24-2 **Reference:** 240

- 794 History:** < Kasai, Fumie **Locality:** Higashihiroshima/Hiroshima/Japan (1983-10-19) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Heterothallic; Mating type(+) **Other strain no.:** 83-24-7 **Reference:** 240

- 795 History:** < Kasai, Fumie **Locality:** Higashihiroshima/Hiroshima/Japan (1983-10-19) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22°C; 55-70µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Heterothallic; Mating type(−) **Other strain no.:** 83-24-3 **Reference:** 240

- 796 History:** < Kasai, Fumie **Locality:** Higashihiroshima/Hiroshima/Japan (1983-10-19) **Isolator:**

Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 22 °C; 55-70µmol/m²/s; 3 M (25 °C; 70-80µmol/m²/s) **Habitat:** Freshwater (Pond water) **Characteristics:** Heterothallic; Mating type(–) **Other strain no.:** 83-24-6 **Reference:** 240

TYCHONEMA : Cyanophyceae

Tychonema bourrellyi Anagnostidis et Komárek

- 846 **History:** < Suda, Shoichiro < CCAP **Other collection strain no.:** CCAP 1459/11B **Locality:** Loughgall/Northern Ireland/U.K. **Isolator:** Fitzsimons **Identified by:** Suda, Shoichiro (Reidentify) **Formerly identified as:** Oscillatoria bourrellyi J.W. G. Lund f. tenuis Skuja **States:** Unialgal; Clonal; Axenic **Culture conditions:** CT; 20°C; 15-25µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Cyanobacterial water bloom (aoko); Type strain **Gene data:** 16S rRNA (AB045897) **References:** 221, 991 **Remarks:** Cryopreserved

ULOTHRIX : Ulvophyceae

Ulothrix variabilis Kützing

- 329 **History:** < Suda, Shoichiro **Locality:** Takatori River/Ibaraki/Japan (1984-12-11) **Isolator:** Suda, Shoichiro **Identified by:** Watanabe, Makoto M. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 20°C; 15-22µmol/m²/s; 3 M **Habitat:** Freshwater (Lake water) **References:** 138, 567, 1017, 1018

Ulothrix zonata (Weber et Mohr) Kützing

- 536 **History:** < Kasai, Fumie **Locality:** Hitachi/Ibaraki/Japan (1987-05-22) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** C; 10°C; 6-12µmol/m²/s; 3 M (10°C; 10-15µmol/m²/s) **Habitat:** Freshwater (Water) **Other strain no.:** 4st-1'-24 **References:** 138, 567, 1018

- 537 **History:** < Kasai, Fumie **Locality:** Shirai River/Hokkaido/Japan (1987-10-**) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** C; 10°C; 10-15µmol/m²/s; 2 M **Habitat:** Freshwater (River water) **Other strain no.:** 2Tst-1-1 **References:** 567, 1018

UMBILICOSPHAERA : Prymnesiophyceae

Umbilicosphaera sibogae (Weber-van Bosse) Gaarder var. *sibogae*

- 1324 **History:** < Kawachi, Masanobu **Locality:** East China Sea (2003-08-06) **Isolator:** Noël, Mary-Hélène **Identified by:** Noël, Mary-Hélène **States:** Unialgal; Clonal; Non-axenic; Coccolith(–)[2013 Jan] **Culture conditions:** MNK; 20°C; 25-40µmol/m²/s; 14-20 D **Habitat:** Marine (Seawater) **Other strain no.:** MH 67

UNIDENTIFIED CHLORARACHNIOPHYTE : Chlorarachniophyceae

Unidentified chlorarachniophyte

- 2502 **History:** < Inouye, Isao **Locality:** Katsurahama Beach/Kochi/Japan (2008-09-28) **Isolator:** Chikuni, Tomoko **Identified by:** Chikuni, Tomoko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 10-15µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Benthic **Other strain no.:** TKB-352

UNIDENTIFIED COCCOID PRASINOPHYTE : Prasinophyceae

Unidentified coccoid prasinophyte

- 1435 **History:** < TKB **Locality:** Amami Isl., Sani/Kagoshima/Japan (2000-06-**.) **Isolator:** Yoshii, Yukie **Identified by:** Yoshii, Yukie **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM; 20°C; 20-30µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-025

(YY-01)

UNIDENTIFIED METAMONAD : Metamonada incertae sedis**Unidentified metamonad**

- 1968 **History:** < TKB **Locality:** Sagami Bay/Shizuoka/Japan (2006-03-12) **Isolator:** Yubuki, Naoji **Identified by:** Yubuki, Naoji (2006-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** ESM + mTYGM-9 + Rice; SUY 1/10 + mTYGM-9 + Rice; 15°C; 0µmol/m²/s; 14 D **Habitat:** Marine (Seawater) **Characteristics:** Heterotrophic; Benthic **Other strain no.:** TKB-336

UNIDENTIFIED PELAGOPHYTE : Pelagophyceae**Unidentified pelagophyte**

- 1386 **History:** < TKB **Locality:** Ishigaki Harbor/Okinawa/Japan (2003-12-25) **Isolator:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** f/2; 20°C; 40-50µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** TKB-085 (nrc061)
- 1387 **History:** < TKB **Locality:** Hachijo Isl./Tokyo/Japan (2002-12-13) **Isolator:** Yoshida, Masaki **Identified by:** Yoshida, Masaki (2003-**-**) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** mIMR; 20°C; 40-50µmol/m²/s; 20 D **Habitat:** Marine (Seawater) **Other strain no.:** TKB-102 (ym-10)

UNIDENTIFIED PRASINOPHYTE : Prasinophyceae**Unidentified prasinophyte**

- 1428 **History:** < TKB **Locality:** Tokyo Bay/Japan **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MNK; 20°C; 20-30µmol/m²/s; 1 M **Habitat:** Marine **Other strain no.:** TKB-104 (CH03A)

UNIDENTIFIED YELLOW HETEROKONTOPHYTE : Heterokontophyta incertae sedis**Unidentified yellow heterokontophyte**

- 1389 **History:** < TKB **Locality:** Yonehara/Okinawa/Japan (2003-12-**) **Isolator:** Okamoto, Noriko **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** IMK; 20°C; 40-50µmol/m²/s; 2 M **Habitat:** Marine (Seawater) **Other strain no.:** TKB-092 (nrc068)

URNELLA : Chlorophyceae***Urnella terrestris*** Playfair

- 156 **History:** < Watanabe, Shin **Locality:** Pokhara/Nepal (1975-10-**) **Isolator:** Watanabe, Shin **Identified by:** Watanabe, Shin **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C (agar); 20°C; 4-10µmol/m²/s; 3 M (25°C; 70-80µmol/m²/s) **Habitat:** Terrestrial (Soil) **Other strain no.:** NPL-111 **References:** 567, 1185 **Remarks:** Cryopreserved

UROGLENA : Chrysophyceae***Uroglena americana*** Calkins

- 395 **History:** < Ishida, Yuzaburo **Locality:** Lake Biwa/Shiga/Japan (1978-05-11) **Isolator:** Ishida, Yuzaburo **Identified by:** Ishida, Yuzaburo **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** URO; 15°C; 20-30µmol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Other water bloom; Phagotrophic **Other strain no.:** Strain 78 **References:** 266, 399, 400 **Remarks:** Poor growth; Fragile species to transportation stresses

URONEMA : Chlorophyceae***Uronema confervicolum*** Lagerheim

- 538 **History:** < Kasai, Fumie **Locality:** Miyata River/Ibaraki/Japan (1987-05-22) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15 μ mol/m²/s; 3 M **Habitat:** Freshwater (River water) **Other strain no.:** 4st-2-10 **References:** 567, 1017, 1018

Uronema gigas Vischer

- 539 **History:** < Kasai, Fumie **Locality:** Miyata River/Ibaraki/Japan (1987-05-22) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15 μ mol/m²/s; 3 M **Habitat:** Freshwater (River water) **Other strain no.:** 4st-3-5 **References:** 567, 1018 **Remarks:** Cryopreserved

- 540 **History:** < Kasai, Fumie **Locality:** Miyata River/Ibaraki/Japan (1987-05-22) **Isolator:** Kasai, Fumie **Identified by:** Kasai, Fumie **States:** Unialgal; Non-clonal; Non-axenic **Culture conditions:** C; 20°C; 8-15 μ mol/m²/s; 3 M **Habitat:** Freshwater (River water) **Other strain no.:** 4st-0-16 **References:** 567, 1018 **Remarks:** Cryopreserved

VAUCHERIA : Xanthophyceae

Vaucheria frigida (Roth) C.Agardh sensu Christensen

- 2614 **History:** < Kataoka, Hironao **Locality:** New York/U.S.A. (1970-**-**) **Isolator:** Kataoka, Hironao **Identified by:** Takahashi, Fumio (2006-09-05) **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 4-10 μ mol/m²/s; 6 M **Habitat:** Freshwater (Stream water) **Characteristics:** Homothallic **Gene data:** rbcL (AB266740) **Other strain no.:** bb1

- 2615 **History:** < Kataoka, Hironao **Locality:** New York/U.S.A. (1970-**-**) **Isolator:** Kataoka, Hironao **Identified by:** Takahashi, Fumio (2006-09-05) **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 4-10 μ mol/m²/s; 6 M **Habitat:** Freshwater (Stream water) **Characteristics:** Homothallic **Gene data:** rbcL (AB266740) **Other strain no.:** bb2

- 2616 **History:** < Kataoka, Hironao **Locality:** New York/U.S.A. (1970-**-**) **Isolator:** Kataoka, Hironao **Identified by:** Takahashi, Fumio (2006-09-05) **States:** Unialgal; Clonal; Axenic **Culture conditions:** C; 20°C; 4-10 μ mol/m²/s; 6 M **Habitat:** Freshwater (Stream water) **Characteristics:** Homothallic **Gene data:** rbcL (AB266740) **Other strain no.:** bf

VISCHERIA : Eustigmatophyceae

Vischeria punctata Vischer

- 2147 **History:** < IAM (2007) < UTEX (1996) **Other collection strain no.:** IAM X-36 (=X-4); ATCC 30441; CCAP 887/1; SAG 887-1; UTEX 153 **Locality:** Unterengadin/Switzerland **Isolator:** Vischer, W. **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 40-50 μ mol/m²/s; 3 M **Habitat:** Terrestrial (Soil)

Vischeria stellata Pascher

- 2148 **History:** < IAM (2007) < BIU (UTEX) **Other collection strain no.:** IAM X-5; CCAP 887/2B; SAG 887-2; UTEX 312 **Locality:** Switzerland **Isolator:** Chodat, R. **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 40-50 μ mol/m²/s; 3 M **Habitat:** Terrestrial (Soil)

VITREOCHLAMYS : Chlorophyceae

Vitreochlamys aulata (Pascher) Batko

- 875 **History:** < Nakazawa, Atsushi **Locality:** Atsugi/Kanagawa/Japan (1998-02-19) **Isolator:** Nakazawa, Atsushi **Identified by:** Nakazawa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32 μ mol/m²/s; 2 M **Habitat:** Freshwater (Paddy soil) **Gene data:** atpB (AB076121); psaA (AB076143); psaB (AB076158); psbC (AB076175); psbC (AB076176); psbC (AB076177); rbcL (AB050486); rbcL (AB050487); rbcL-462 intron (AB076097) **Other strain no.:** Spha-5/1998-3-9 **References:** 661, 663, 740, 743

- 876 **History:** < Nakazawa, Atsushi **Locality:** Habikino/Osaka/Japan (1998-03-14) **Isolator:** Nakazawa,

Atsushi **Identified by:** Nakazawa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 2 M **Habitat:** Freshwater (Paddy soil) **Gene data:** rbcL (AB050488); rbcL (AB050489) **Other strain no.:** Spha-8/1998-7-14 **Reference:** 661

877 **History:** < Nakazawa, Atsushi < SAG **Other collection strain no.:** SAG 69.72 **Locality:** South Bohemia/Czech **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20 °C ; 22-32µmol/m²/s; 2 M **Habitat:** Freshwater (Ditch water) **Gene data:** rbcL (AB050492) **References:** 661, 662

878 **History:** < Nakazawa, Atsushi < SAG **Other collection strain no.:** SAG 80.81 **Locality:** Zool/Slovakia **Formerly identified as:** Sphaerellopsis aulata Pascher **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Gene data:** rbcL (AB050493) **Reference:** 661

Vitreochlamys fluviatilis (Stein) Batko

879 **History:** < Nakazawa, Atsushi **Locality:** Nerima-ku/Tokyo/Japan (1997-11-13) **Isolator:** Nakazawa, Atsushi **Identified by:** Nakazawa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Gene data:** rbcL (AB050484) **Other strain no.:** Spha-1/1997-12-5 **Reference:** 661

Vitreochlamys gloeocystiformis (Dill) Nakazawa

Syn. *Sphaerellopsis gloeocystiformis* (Dill) Gerloff

880 **History:** < Nozaki, Hisayoshi **Locality:** Lake Altglobsow/Brandenburg/Germany (1997-08-04) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nakazawa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** rbcL (AB050485) **Other strain no.:** 970805-U-4 **Reference:** 661

Vitreochlamys nekrassovii (Korshikov) Nakazawa

Syn. *Sphaerellopsis nekrassovii* (Korshikov) Ettl

881 **History:** < Nakazawa, Atsushi < SAG **Other collection strain no.:** SAG 11-10 **Locality:** Shore of River Elbe, near Celakovice/Czech **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20 °C ; 22-32µmol/m²/s; 2 M **Habitat:** Freshwater (River water) **Gene data:** rbcL (AB050494) **Reference:** 661

Vitreochlamys ordinata (Skuja) Nakazawa

Syn. *Sphaerellopsis ordinata* Skuja

882 **History:** < Nozaki, Hisayoshi **Locality:** Lake Altglobsow/Brandenburg/Germany (1997-08-04) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nakazawa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Gene data:** atpB (AB014036); psaA (AB044420); psaB (AB044471); psbC (AB044529); rbcL (AB014041) **Other strain no.:** 970804-S-4 (= Nozaki S-4) **References:** 661, 733, 738, 740

Vitreochlamys pinguis Nakazawa

883 **History:** < Nakazawa, Atsushi **Locality:** Shakujii Park/Tokyo/Japan (1998-06-02) **Isolator:** Nakazawa, Atsushi **Identified by:** Nakazawa, Atsushi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 2 M **Habitat:** Freshwater (Pond water) **Characteristics:** Authentic strain **Gene data:** atpB (AB076120); psaA (AB076142); psaB (AB076157); psbC (AB076174); rbcL (AB050490); rbcL (AB050491) **Other strain no.:** Spha-12/1998-7-16 **References:** 661, 740, 743

VOLVOX : Chlorophyceae

Volvox africanus G.S. West

863 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1891 **Isolator:** Starr, R. C. **Identified by:** Starr, R. C. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6/2; 23°C; 180-200µmol/m²/s; 20 D **Characteristics:** Heterothallic; Dioecious; Oogamy; Female **Remarks:** Fragile species to transportation stresses

Volvox aureus Ehrenberg

- 241 History:** < IAM (1983) **Other collection strain no.:** IAM C-419 **Locality:** Nagatoro/Saitama/Japan (1969-11-13) **Isolator:** Ichimura, Terunobu **Identified by:** Ichimura, Terunobu **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 25°C; 100-120 μ mol/m²/s; 20 D **Habitat:** Freshwater (Pond sediment) **Characteristics:** Fertility lost **Other strain no.:** S-9-8 **References:** 235, 567 **Remarks:** Fragile species to transportation stresses
- 396 History:** < Ogasawara, Yoshikazu **Locality:** Nagano/Japan (1983-08-27) **Isolator:** Ogasawara, Yoshikazu **Identified by:** Ogasawara, Yoshikazu **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 23 °C ; 180-200 μ mol/m²/s; 20 D **Habitat:** Freshwater (Paddy water) **Characteristics:** Homothallic **Reference:** 567 **Remarks:** Fragile species to transportation stresses
- 693 History:** < Nozaki, Hisayoshi **Locality:** Tokyo/Japan (1977-06-22) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** VT; 20°C; 180-200 μ mol/m²/s; 1 M **Habitat:** Freshwater (Stream water) **Characteristics:** Other water bloom; Homothallic; Dioecious; Oogamy **Other strain no.:** k-5 **Reference:** 567 **Remarks:** Fragile species to transportation stresses
- 694 History:** < Nozaki, Hisayoshi **Other collection strain no.:** IAM C-600 **Locality:** Kyoto University/Kyoto/Japan (1983-10-04) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20°C; 180-200 μ mol/m²/s; 1 M **Habitat:** Freshwater (Stream water) **Characteristics:** Other water bloom; Homothallic; Dioecious; Oogamy **Other strain no.:** 31202-2-9 **Reference:** 567 **Remarks:** Fragile species to transportation stresses
- 864 History:** < Nozaki, Hisayoshi **Locality:** Neuglobsow/Brandenburg/Germany (1997-07-17) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 35-50 μ mol/m²/s; 2 M **Habitat:** (Freshwater) **Other strain no.:** 970717-1 **Remarks:** Fragile species to transportation stresses
- 891 History:** < Nozaki, Hisayoshi **Locality:** Neuglobsow/Brandenburg/Germany (1997-07-17) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 35-50 μ mol/m²/s; 2 M **Habitat:** (Freshwater) **Gene data:** atpB (AB076104); psaA (AB076123); psaB (AB076145); psbC (AB076160); rbcL (AB076096) **Other strain no.:** 970717-2 **Reference:** 743 **Remarks:** Fragile species to transportation stresses
- 892 History:** < Nozaki, Hisayoshi **Locality:** Lake Sagami/Kanagawa/Japan (1999-06-01) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 15 °C ; 35-50 μ mol/m²/s; 1 M **Habitat:** Freshwater (Lake water) **Characteristics:** Other water bloom; Homothallic; Dioecious; Oogamy **Gene data:** atpB (AB076105); psaA (AB076124); psaB (AB076146); psbC (AB076161); rbcL (AB076086) **Other strain no.:** 990601-IV-9 **Reference:** 743 **Remarks:** Fragile species to transportation stresses

Volvox aureus Ehrenberg var. *aureus*

- 541 History:** < Nozaki, Hisayoshi **Locality:** Lake Yamanaka/Yamanashi/Japan (1981-**-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** VT; 23°C; 180-200 μ mol/m²/s; 1 M **Habitat:** Freshwater (Sediment) **Gene data:** atpB (AB013998); psaA (AB044182); psaB (AB044424); psbC (AB044474) **Other strain no.:** 1706-2 **References:** 567, 692, 706, 714, 715, 733, 738 **Remarks:** Fragile species to transportation stresses
- 542 History:** < Nozaki, Hisayoshi **Locality:** Lake Yamanaka/Yamanashi/Japan (1981-**-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 23°C; 180-200 μ mol/m²/s; 1 M **Habitat:** Freshwater (Sediment) **Other strain no.:** 1706-4 **References:** 567, 692 **Remarks:** Fragile species to transportation stresses

Volvox barbieri Shaw

- 730 History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 804; IAM C-601 **Locality:** Lemoncove/California/U.S.A. **Isolator:** Stein, J. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** C; 23°C; 180-200 μ mol/m²/s; 20 D **Habitat:** Freshwater (Soil) **Gene data:** atpB (AB014001); psaA (AB044186); psaB (AB044427); psbC (AB044477); rbcL (D86835)

References: 662, 716, 733, 738 **Remarks:** Fragile species to transportation stresses

Volvox carteri Stein

- 397 **History:** < Ogasawara, Yoshikazu **Locality:** Ichinomiya, Asai/Aichi/Japan (1983-06-12) **Isolator:** Ogasawara, Yoshikazu **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** VT; 25°C; 100-120µmol/m²/s; 20 D **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic; Female; Crosses with NIES-398 **Other strain no.:** V-4 **Reference:** 567 **Remarks:** Fragile species to transportation stresses
- 398 **History:** < Ogasawara, Yoshikazu **Locality:** Ichinomiya, Asai/Aichi/Japan (1983-06-12) **Isolator:** Ogasawara, Yoshikazu **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** VT; 25°C; 100-120µmol/m²/s; 20 D **Habitat:** Freshwater (Paddy water) **Characteristics:** Heterothallic; Male; Crosses with NIES-397 **Other strain no.:** V-11 **Reference:** 567 **Remarks:** Fragile species to transportation stresses

Volvox carteri Stein f. *kawasakiensis* Nozaki

- 580 **History:** < Nozaki, Hisayoshi **Locality:** Kawasaki/Kanagawa/Japan (1984-01-30) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VTAC; 20°C; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Dioecious; Oogamy; Female; Crosses with NIES-581 **Other strain no.:** 6823-+-2 **References:** 567, 699 **Remarks:** Fragile species to transportation stresses
- 581 **History:** < Nozaki, Hisayoshi **Locality:** Kawasaki/Kanagawa/Japan (1990-10-29) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VTAC; 20°C; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Dioecious; Oogamy; Male; Crosses with NIES-580 **Other strain no.:** 90-1111-5 **References:** 567, 699 **Remarks:** Fragile species to transportation stresses
- 732 **History:** < Nozaki, Hisayoshi **Locality:** Kawasaki/Kanagawa/Japan (1984-01-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 23°C; 180-200µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Authentic strain; Heterothallic; Dioecious; Oogamy; Female; Crosses with NIES-733 **Gene data:** atpB (AB013999); psaA (AB044184); psaA (AB044185); psaB (AB044425); psbC (AB044475); rbcL (D63446) **Other strain no.:** KK-3 **References:** 699, 706, 715, 733, 738, 740 **Remarks:** Fragile species to transportation stresses
- 733 **History:** < Nozaki, Hisayoshi **Locality:** Kawasaki/Kanagawa/Japan (1984-01-**) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 23°C; 180-200µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Authentic strain; Heterothallic; Dioecious; Oogamy; Male; Crosses with NIES-732 **Other strain no.:** KK-5 **Reference:** 699 **Remarks:** Fragile species to transportation stresses

Volvox carteri Stein f. *nagariensis* Iyengar

- 865 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1885 **Locality:** Kobe/Hyogo/Japan **Isolator:** Starr, R. C. **Identified by:** Starr, R. C. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 23 °C ; 180-200µmol/m²/s; 20 D **Characteristics:** Heterothallic; Dioecious; Oogamy; Female **Remarks:** Fragile species to transportation stresses

Volvox carteri Stein f. *weismannia* (Powers) Iyengar

- 866 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1875 **Locality:** Waterford/Australia **Isolator:** Starr, R. C. **Identified by:** Starr, R. C. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VTAC; 23 °C ; 180-200µmol/m²/s; 20 D **Characteristics:** Heterothallic; Dioecious; Oogamy; Male **Remarks:** Fragile species to transportation stresses

Volvox dissipatrix (Shaw) Printz

- 731 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 2184 **Isolator:** Starr, R. C. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 23°C; 180-200µmol/m²/s; 14 D **Habitat:** Freshwater **Gene data:** atpB (AB014000); psaA (AB044183); psaB (AB044426); psbC (AB044476); rbcL (D63447) **References:** 662, 715, 733, 738 **Remarks:** Fragile species to transportation stresses

Volvox ferrisii Isaka, Matsuzaki et Nozaki

- 2736 **History:** < Nozaki, Hisayoshi **Locality:** Kanagawa/Japan (1984-01-31) **Isolator:** Nozaki, Hisayoshi **Identified by:** Isaka, Nanako; Matsuzaki, Ryo; Nozaki, Hisayoshi (2011-07-06) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VTAC; 20°C; 15-27µmol/m²/s; 1 M **Habitat:** Freshwater (Soil) **Characteristics:** Phototaxis; Mixotrophic; Homothallic; Oogamy; Resting zygote forming **Gene data:** ITS1-5.8S-ITS2 (AB663336); psbC (AB663335); rbcL (AB663334) **Other strain no.:** 40225-VG-17 **Reference:** 264 **Remarks:** Fragile species to transportation stresses
- 2737 **History:** < Nozaki, Hisayoshi **Locality:** Ibaraki/Japan (2004-07-06) **Isolator:** Nozaki, Hisayoshi **Identified by:** Isaka, Nanako; Matsuzaki, Ryo; Nozaki, Hisayoshi (2011-07-06) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VTAC; 20°C; 15-27µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** Phototaxis; Mixotrophic; Homothallic; Oogamy; Resting zygote forming **Gene data:** ITS1-5.8S-ITS2 (AB663339); psbC (AB663338); rbcL (AB663337) **Other strain no.:** 2004-706-Vx2 **Reference:** 264 **Remarks:** Fragile species to transportation stresses
- 2738 **History:** < Nozaki, Hisayoshi **Other collection strain no.:** UTEX 2967 **Locality:** Lake Isanuma/Saitama/Japan (2009-04-23) **Isolator:** Nozaki, Hisayoshi **Identified by:** Isaka, Nanako; Matsuzaki, Ryo; Nozaki, Hisayoshi (2011-07-06) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 15-27µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Phototaxis; Mixotrophic; Homothallic; Oogamy; Resting zygote forming **Gene data:** ITS1-5.8S-ITS2 (AB663333); psbC (AB663332); rbcL (AB663331) **Other strain no.:** I-he **Reference:** 264 **Remarks:** Fragile species to transportation stresses
- 2739 **History:** < Nozaki, Hisayoshi **Locality:** Lake Isanuma/Saitama/Japan (2009-04-23) **Isolator:** Nozaki, Hisayoshi **Identified by:** Isaka, Nanako; Matsuzaki, Ryo; Nozaki, Hisayoshi (2011-07-06) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VTAC; 20°C; 15-27µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** ; Phototaxis; Authentic strain; Homothallic; Oogamy; Resting zygote forming **Gene data:** ITS1-5.8S-ITS2 (AB663330); psbC (AB663329); rbcL (AB663328) **Other strain no.:** I-ro **Reference:** 264 **Remarks:** Fragile species to transportation stresses

Volvox gigas Pocock

- 867 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1895 **Isolator:** Starr, R. C. **Identified by:** Starr, R. C. **States:** Unialgal; Clonal; Non-axenic; Remarkable large colonies[2012 Oct] **Culture conditions:** MG; 23°C; 180-200µmol/m²/s; 14 D **Characteristics:** Heterothallic; Dioecious; Oogamy; Female **Remarks:** Fragile species to transportation stresses

Volvox kirkiorum Nozaki, Kawai-Toyooka et Isaka

- 543 **History:** < Ogasawara, Yoshikazu **Locality:** Japan **Isolator:** Ogasawara, Yoshikazu **Identified by:** Isaka, Matsuzaki, Nozaki; Former Suda **Formerly identified as:** Volvox prolificus Iyengar **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** VT; 23°C; 180-200µmol/m²/s; 1 M **Habitat:** Freshwater **Gene data:** ITS1-5.8S-ITS2 (AB663327); psbC (AB663326); rbcL (AB663325) **Other strain no.:** V-sp **References:** 264, 567 **Remarks:** Fragile species to transportation stresses
- 2740 **History:** < Nozaki, Hisayoshi **Other collection strain no.:** UTEX 2966 **Locality:** Gifu/Japan (2006-07-27) **Isolator:** Nozaki, Hisayoshi **Identified by:** Isaka, Nanako; Matsuzaki, Ryo; Nozaki, Hisayoshi (2011-07-06) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; VTAC; 20°C; 15-27µmol/m²/s; 1 M **Habitat:** Freshwater **Characteristics:** ; Phototaxis; Authentic strain; Homothallic; Oogamy; Resting zygote forming **Gene data:** ITS1-5.8S-ITS2 (AB663324); psbC (AB663323); rbcL (AB663322) **Other strain no.:** 2006-728-2-B8 **Reference:** 264 **Remarks:** Fragile species to transportation stresses

Volvox obversus (Shaw) Printz

- 868 **History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1865 **Isolator:** Starr, R. C. **Identified by:** Starr, R. C. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 23 °C ; 180-200µmol/m²/s; 14 D **Characteristics:** Heterothallic; Dioecious; Oogamy; Male **Remarks:** Fragile species to transportation stresses

Volvox ovalis Pocock ex Nozaki et Coleman

- 2569 History:** < Nozaki, Hisayoshi **Locality:** U.S.A. (before 2000) **Isolator:** Cox, Elenor R. **Identified by:** Nozaki, Hisayoshi (2010-04-01) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; VTAC; 22°C; 180-200µmol/m²/s; 1 M **Habitat:** Freshwater (Water) **Characteristics:** Authentic strain **Other strain no.:** Volvox ovalis **Reference:** 709 **Remarks:** Fragile species to transportation stresses

Volvox rousseletii G.S. West

- 734 History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 1862 **Isolator:** Starr, R. C. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 23°C; 180-200µmol/m²/s; 1 M **Habitat:** Freshwater **Gene data:** atpB (AB014003); psaA (AB044188); psaB (AB044429); psbC (AB044479); rbcL (D63448) **References:** 715, 733, 738 **Remarks:** Fragile species to transportation stresses

Volvox sp.

- 2307 History:** < Ogasawara, Yoshikazu **Locality:** Ichinomiya/Aichi/Japan (1986-06-04) **Isolator:** Ogasawara, Yoshikazu **Identified by:** Ogasawara, Yoshikazu **States:** Unialgal **Culture conditions:** AF-6; 23°C; 180-200µmol/m²/s; 20 D **Habitat:** Freshwater (Paddy water) **Characteristics:** Homothallic **Remarks:** Fragile species to transportation stresses

Volvox tertius Meyer

- 544 History:** < Ogasawara, Yoshikazu **Locality:** Kisofukushima/Nagano/Japan (1986-08-27) **Isolator:** Ogasawara, Yoshikazu **Identified by:** Ogasawara, Yoshikazu **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** MG; 23°C; 180-200µmol/m²/s; 20 D **Habitat:** Freshwater (Paddy water) **Characteristics:** Homothallic **Gene data:** atpB (AB086173); psaA (AB086175); psaA (AB086176); psaB (AB086177); psbC (AB086178); rbcL (AB086174) **References:** 567, 707 **Remarks:** Fragile species to transportation stresses

- 869 History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 132 **Locality:** Cambridge, Queen's Ditch/England/U.K. (1947-**-**) **Isolator:** George, E. A. **Identified by:** Starr, R. C. **States:** Unialgal; Clonal; Axenic[2012 Nov] **Culture conditions:** MG; 23°C; 180-200µmol/m²/s; 14 D **Habitat:** Freshwater (Ditch water) **Remarks:** Fragile species to transportation stresses

VOLVULINA : Chlorophyceae*Volvulina boldii* O'Neil et Starr nom. nud.

- 893 History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 2185 **Locality:** Peurith/North Carolina/U.S.A. **Isolator:** Starr, R. C. **Identified by:** Starr, R. C. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 22-32µmol/m²/s; 1 M **Characteristics:** Heterothallic; Isogamy; Mating type(+) **Gene data:** atpB (AB044176); psaA (AB044225); psaB (AB044451); psbC (AB044504); rbcL (AB044162); rbcL (AB044163) **Reference:** 733

- 894 History:** < Nozaki, Hisayoshi < UTEX **Other collection strain no.:** UTEX 2186 **Locality:** Peurith/North Carolina/U.S.A. **Isolator:** Starr, R. C. **Identified by:** Starr, R. C. **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** MG; 20°C; 22-32µmol/m²/s; 1 M **Characteristics:** Heterothallic; Isogamy; Mating type(-)

Volvulina compacta Nozaki

- 582 History:** < Nozaki, Hisayoshi **Locality:** Birtamod/Nepal (1988-10-07) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:** VT; 20°C; 15-27µmol/m²/s; 1 M **Habitat:** Freshwater (Paddy soil) **Characteristics:** Heterothallic; Mating type(+); Crosses with NIES-583 **Gene data:** atpB (AB014029); psaA (AB044217); psaA (AB044218); psaA (AB044219); psaB (AB044446); psbC (AB044498); rbcL-462 intron (AB076089) **Other strain no.:** 89-804-4 **References:** 567, 716, 725, 733, 738, 740, 743

- 583 History:** < Nozaki, Hisayoshi **Locality:** Birtamod/Nepal (1988-10-07) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Axenic **Culture conditions:**

VT; 20°C; 15-27µmol/m²/s; 1 M **Habitat**: Freshwater (Paddy soil) **Characteristics**: Heterothallic; Mating type(-); Crosses with NIES-582 **Other strain no.**: 89-804-7 **References**: 567, 725

- 2567 History**: < Nakada, Takashi **Locality**: Lake Tsukui/Kanagawa/Japan (2002-05-30) **Isolator**: Nakada, Takashi **Identified by**: Nakada, Takashi (2002-06-**) **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: MG; 20°C; 22-32µmol/m²/s; 1 M **Habitat**: Freshwater (Lake water) **Other strain no.**: TN-0205-2-Pn-1 **Reference**: 617

***Volvulina pringsheimii* Starr**

- 895 History**: < Nozaki, Hisayoshi < UTEX **Other collection strain no.**: UTEX 1020 **Locality**: Fredricksburg/Texas/U.S.A. **Isolator**: Starr, R. C. **Identified by**: Starr, R. C. **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: MG; 20°C; 22-32µmol/m²/s; 1 M **Habitat**: Terrestrial (Rock) **Characteristics**: Heterothallic; Isogamy **Gene data**: atpB (AB014028); psaA (AB044220); psaB (AB044447); psbC (AB044499); rbcL (D63444) **References**: 715, 733, 738

***Volvulina steinii* Playfair**

- 545 History**: < Nozaki, Hisayoshi **Locality**: Hayama/Kanagawa/Japan (1980-12-**) **Isolator**: Nozaki, Hisayoshi **Identified by**: Nozaki, Hisayoshi **States**: Unialgal; Clonal; Axenic **Culture conditions**: VTAC; 20 °C ; 15-27µmol/m²/s; 1 M **Habitat**: Freshwater (Paddy soil) **Characteristics**: Heterothallic; Mating type(-); Crosses with NIES-546 **Gene data**: atpB (AB044713); psaA (AB044221); psaA (AB044222); psaB (AB044448); psbC (AB044500); rbcL (AB044159) **Other strain no.**: 1107-5 (-) **References**: 567, 662, 689, 712, 733

- 546 History**: < Nozaki, Hisayoshi **Locality**: Hayama/Kanagawa/Japan (1980-12-**) **Isolator**: Nozaki, Hisayoshi **Identified by**: Nozaki, Hisayoshi **States**: Unialgal; Clonal; Axenic **Culture conditions**: VTAC; 20 °C ; 15-27µmol/m²/s; 1 M **Habitat**: Freshwater (Paddy soil) **Characteristics**: Heterothallic; Mating type(+); Crosses with NIES-545 **Other strain no.**: 1107-8 (+) **References**: 374, 567, 689

- 584 History**: < Nozaki, Hisayoshi **Locality**: Bahrabise/Nepal (1988-09-01) **Isolator**: Nozaki, Hisayoshi **Identified by**: Nozaki, Hisayoshi **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: VTAC; 20 °C ; 22-27µmol/m²/s; 1 M **Habitat**: Freshwater (Paddy soil) **Characteristics**: Heterothallic; Isogamy; Mating type(+); Crosses with NIES-585 **Other strain no.**: 89-306-1 **References**: 567, 701

- 585 History**: < Nozaki, Hisayoshi **Locality**: Bahrabise/Nepal (1988-09-01) **Isolator**: Nozaki, Hisayoshi **Identified by**: Nozaki, Hisayoshi **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: VTAC; 20 °C ; 22-27µmol/m²/s; 1 M **Habitat**: Freshwater (Paddy soil) **Characteristics**: Heterothallic; Isogamy; Mating type(-); Crosses with NIES-584 **Other strain no.**: 89-423-1 **References**: 567, 701

- 896 History**: < Nozaki, Hisayoshi < UTEX **Other collection strain no.**: UTEX 1525 **Locality**: Farmington/California/U.S.A. **Isolator**: Carefoot, J. R. **Identified by**: Carefoot, J. R. **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: AF-6; 20°C; 22-32µmol/m²/s; 1 M **Habitat**: Freshwater (Ditch mud) **Characteristics**: Mixotrophic; Heterothallic; Isogamy **Gene data**: atpB (AB044174); psaA (AB044223); psaB (AB044449); psbC (AB044501); rbcL (AB044160) **References**: 45, 689, 712, 733

- 897 History**: < Nozaki, Hisayoshi < UTEX **Other collection strain no.**: UTEX 1527 **Locality**: Bloomington/Indiana/U.S.A. **Isolator**: Carefoot, J. R. **Identified by**: Carefoot, J. R. **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: AF-6; 20°C; 22-32µmol/m²/s; 1 M **Habitat**: Salt water (Salt creek mud) **Characteristics**: Mixotrophic; Heterothallic; Isogamy **References**: 45, 689, 712

- 898 History**: < Nozaki, Hisayoshi < UTEX **Other collection strain no.**: UTEX 1531 **Locality**: Wilson County/Texas/U.S.A. **Isolator**: Carefoot, J. R. **Identified by**: Carefoot, J. R. **States**: Unialgal; Clonal; Non-axenic **Culture conditions**: AF-6; 20°C; 22-32µmol/m²/s; 1 M **Habitat**: Freshwater (Soil or Mud) **Characteristics**: Mixotrophic; Heterothallic; Isogamy **Gene data**: atpB (AB044175); psaA (AB044224); psaB (AB044450); psbC (AB044502); psbC (AB044503); rbcL (AB044161) **References**: 45, 689, 712, 733

WATANABEA : Trebouxiophyceae*Watanabea reniformis* Hanagata, Karube, Chihara et Silva

- 2189 History:** < IAM (2007) < Soeder, C. J. (1966) < CCAP **Other collection strain no.:** IAM C-211; CCAP 211/9b **Isolator:** Pringsheim, E. G. **Formerly identified as:** Chlorella saccharophila (Krüger) Migula **States:** Unialgal; Clonal; Axenic[2013 Jan] **Culture conditions:** C (agar); 20°C; 8-15µmol/m²/s; 3 M **Other strain no.:** Cambridge Univ. 211-9b **References:** 144, 190, 424, 425, 1211, 1212

WOBLIA : Placididea*Wobblia lunata* Moriya, Nakayama et Inouye

- 1015 History:** < Moriya, Mayumi **Locality:** Osabe Harbor/Iwate/Japan (1996-08-**) **Isolator:** Moriya, Mayumi **Identified by:** Moriya, Mayumi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** SUY; 15 °C ; 0µmol/m²/s; 1 M **Habitat:** Marine (Seawater) **Characteristics:** Phagotrophic; Heterotrophic; Authentic strain **Gene data:** 18S rRNA (AB032606) **Other strain no.:** #1 **Reference:** 573

YAMAGISHIELLA : Chlorophyceae*Yamagishiella unicocca* (Rayburn et Starr) NozakiSyn. *Pandorina unicocca* Rayburn et Starr

- 578 History:** < Nozaki, Hisayoshi **Locality:** Kamogawa/Chiba/Japan (1980-10-19) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VTAC; 20 °C ; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater (Pond sediment) **Characteristics:** Heterothallic; Isogamy; Mating type(+); Crosses with NIES-579 **Other strain no.:** 01209-1 **References:** 567, 742, 1208

- 579 History:** < Nozaki, Hisayoshi **Locality:** Kamogawa/Chiba/Japan (1980-10-19) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VTAC; 20 °C ; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater (Pond sediment) **Characteristics:** Heterothallic; Isogamy; Mating type(-); Crosses with NIES-578 **Other strain no.:** 01209-7 **Reference:** 567

- 666 History:** < Nozaki, Hisayoshi **Other collection strain no.:** UTEX 2428 **Locality:** Nobi/Kanagawa/Japan (1979-05-**) **Isolator:** Kato, Sueo **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VT; 20°C; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Heterothallic; Isogamy; Mating type(+); Crosses with NIES-667 **Gene data:** atpB (AB014030); psaA (AB044213); psaB (AB044443); psbC (AB044495); rbcL (D86823) **Other strain no.:** X-441 **References:** 396, 567, 688, 716, 728, 733, 738, 1208

- 667 History:** < Nozaki, Hisayoshi **Other collection strain no.:** UTEX 2429 **Locality:** Nobi/Kanagawa/Japan (1979-05-**) **Isolator:** Kato, Sueo **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** VT; 20°C; 22-27µmol/m²/s; 1 M **Habitat:** Freshwater (Pond water) **Characteristics:** Heterothallic; Isogamy; Mating type(-); Crosses with NIES-666 **Other strain no.:** X-443 **References:** 567, 688

- 870 History:** < Nozaki, Hisayoshi **Locality:** Lake Röblin/Fürstenberg/Germany (1997-07-29) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 20-30µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Heterothallic; Isogamy; Mating type(+) **Other strain no.:** 970730-E-1 **Reference:** 1208

- 871 History:** < Nozaki, Hisayoshi **Locality:** Lake Röblin/Fürstenberg/Germany (1997-07-29) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15°C; 20-30µmol/m²/s; 2 M **Habitat:** Freshwater (Lake water) **Characteristics:** Heterothallic; Isogamy; Mating type(-) **Other strain no.:** 970730-E-7

- 872 **History:** < Nozaki, Hisayoshi **Locality:** Brandenburg/Germany (1997-07-31) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15 °C ; 20-30µmol/m²/s; 2 M **Habitat:** (Freshwater) **Characteristics:** Heterothallic; Isogamy; Mating type(+) **Gene data:** atpB (AB044172); psaA (AB044216); psaB (AB044445); psbC (AB044497); rbcL (AB044168) **Other strain no.:** 970801-E-5 (= Nozaki E-5) **References:** 733, 1208
- 873 **History:** < Nozaki, Hisayoshi **Locality:** Brandenburg/Germany (1997-07-31) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15 °C ; 20-30µmol/m²/s; 2 M **Habitat:** (Freshwater) **Characteristics:** Heterothallic; Isogamy; Mating type(−) **Other strain no.:** 970801-E-9
- 874 **History:** < Nozaki, Hisayoshi **Locality:** Brandenburg/Germany (1997-07-31) **Isolator:** Nozaki, Hisayoshi **Identified by:** Nozaki, Hisayoshi **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 15 °C ; 20-30µmol/m²/s; 2 M **Habitat:** (Freshwater) **Characteristics:** Heterothallic; Isogamy; Mating type(−) **Other strain no.:** 970801-E-10
- 1859 **History:** < Nozaki, Hisayoshi **Locality:** Noumi Isl./Hiroshima/Japan (2004-08-18) **Isolator:** Yamada, Toshihiro **Identified by:** Yamada, Toshihiro (2005-06-17) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Soil) **Characteristics:** Heterothallic; Dioecious; Isogamy; Mating type(−); Crosses with NIES-1861 **Other strain no.:** Hasu-1 **Reference:** 1208
- 1860 **History:** < Nozaki, Hisayoshi **Locality:** Noumi Isl./Hiroshima/Japan (2004-08-18) **Isolator:** Yamada, Toshihiro **Identified by:** Yamada, Toshihiro (2005-06-17) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Soil) **Characteristics:** Heterothallic; Dioecious; Isogamy; Mating type(−); Crosses with NIES-1861 **Other strain no.:** Hasu-2
- 1861 **History:** < Nozaki, Hisayoshi **Locality:** Noumi Isl./Hiroshima/Japan (2004-08-18) **Isolator:** Yamada, Toshihiro **Identified by:** Yamada, Toshihiro (2005-06-17) **States:** Unialgal; Clonal; Non-axenic **Culture conditions:** AF-6; 20°C; 22-32µmol/m²/s; 1 M **Habitat:** Freshwater (Soil) **Characteristics:** Heterothallic; Dioecious; Isogamy; Mating type(+); Crosses with NIES-1859, 1860 **Other strain no.:** Hasu-4

3. List of type specimens

Specimen ID: NIES-50001

Scientific name: *Chlorogonium capillatum* Nozaki, M. M. Watanabe et Aizawa

Class name: Chlorophyceae

Deposition date: 2007-3-31

Depositor(s): Nakada, T. & Nozaki, H. (University of Tokyo)

Type status: Epitype

Specimen status: Cryopreserved

Corresponding active culture strain: NIES-692

Reference: See section VIII Nakada *et al.* 2008

Specimen ID: NIES-50002

Scientific name: *Chlorogonium elongatum* (P. A. Dangeard) Francé

Class name: Chlorophyceae

Basionym: *Cercidium elongatum* P. A. Dangeard

Deposition date: 2007-3-31

Depositor(s): Nakada, T. & Nozaki, H. (University of Tokyo)

Type status: Epitype

Specimen status: Cryopreserved

Corresponding active culture strain: NIES-751 (IAM C-293, CCAP 12/1, UTEX 204)

Reference: See section VIII Nakada *et al.* 2008

Specimen ID: NIES-50003

Scientific name: *Chlorogonium euchlorum* (Ehrenberg) Ehrenberg

Class name: Chlorophyceae

Basionym: *Astasia euchlora* Ehrenberg

Deposition date: 2007-3-31

Depositor(s): Nakada, T. & Nozaki, H. (University of Tokyo)

Type status: Epitype

Specimen status: Cryopreserved

Corresponding active culture strain: NIES-755 (UTEX 2010)

Reference: See section VIII Nakada *et al.* 2008

Specimen ID: NIES-50005

Scientific name: *Gungnir kasakii* (Nozaki) Nakada

Class name: Chlorophyceae

Basionym: *Chlorogonium kasakii* Nozaki

Deposition date: 2007-3-31

Depositor(s): Nakada, T. & Nozaki, H. (University of Tokyo)

Type status: Epitype

Specimen status: Cryopreserved

Corresponding active culture strain: NIES-761 (CCAP 12/8)

Reference: See section VIII Nakada *et al.* 2008

Specimen ID: NIES-50006

Scientific name: *Gungnir neglectum* (Pascher) Nakada

Class name: Chlorophyceae

Basionym: *Chlorogonium neglectum* Pascher

Synonym: *Chlamydomonas neglecta* (Pascher) Korshikov

Deposition date: 2007-3-31

Depositor(s): Nakada, T. & Nozaki, H. (University of Tokyo)

Type status: Epitype

Specimen status: Cryopreserved

Corresponding active culture strain: NIES-439

Reference: See section VIII Nakada *et al.* 2008

Specimen ID: NIES-50007

Scientific name: *Rusalka fusiformis* (Matvienko) Nakada

Class name: Chlorophyceae

Basionym: *Chlorogonium fusiforme* Matvienko

Deposition date: 2007-3-31

Depositor(s): Nakada, T. & Nozaki, H. (University of Tokyo)

Type status: Epitype

Specimen status: Cryopreserved

Corresponding active culture strain: NIES-123 (IAM C-349)

[CONTENTS](#)

Reference: See section VIII References 731.

4. List of synonyms

Synonym → Current name

Achnanthes minutissima Kützing → *Achnanthidium minutissimum* (Kützing) Czarnecki

Achnanthes minutissima Kützing var. *saprophiila* Kobayasi et Mayama

→ *Achnanthidium minutissimum* (Kützing) Czarnecki var. *saprophilum* Kobayasi et Mayama

Amphidinium britannicum (Herdmann) Lebour → *Togula britannica* (Herdman) Jørgensen, Murray et Daugbjerg

Anabaena flos-aquae Brébisson ex Bornet et Flahault f. *flos-aquae*

→ *Anabaena flos-aquae* Brébisson ex Bornet et Flahault

Anabaena raciborskii Woloszynska → *Cylindrospermopsis raciborskii* (Woloszynska) Seenayya et S.Raju

Anabaena spirooides Klebahn f. *crassa* (Lemmermann) Elenkin

→ *Anabaena crassa* (Lemmermann) Komárková-Legnerová et Cronberg

Anabaena spirooides Klebahn var. *crassa* Klebahn

→ *Anabaena crassa* (Lemmermann) Komárková-Legnerová et Cronberg

Ankistrodesmus subcapitata Korshikov → *Pseudokirchneriella subcapitata* (Korshikov) Hindák

Arthrospira platensis Gomont → *Arthrospira platensis* (Nordstedt) Gomont

Asterionella glacialis Castracane → *Asterionellopsis glacialis* (Castracane) Round

Asterocystis ramosa (Thwaites) Gobi → *Chroodactylon ornatum* (C.Agarde) Basson

Asterocystis smargadina Reinsch → *Chroodactylon ornatum* (C.Agarde) Basson

Batrachospermum vagum (Roth) Agardh → *Batrachospermum turfosum* Bory

Cachonina niei Loeblich III → *Heterocapsa niei* (Loeblich III) Morrill et Loeblich III

Cercidium elongatum Dangeard → *Chlorogonium elongatum* (Dangeard) Francé

Chattonella verruculosa Hara et Chihara → *Pseudochattonella verruculosa* (Hara et Chihara) Tanabe-Hosoi et al.

Chilomonas paramecium Ehrenberg → *Cryptomonas paramecium* (Ehrenberg) Hoef-Emden et Melkonian

Chlamydomonas elongata Wille → *Chlorogonium elongatum* (Dangeard) Francé

Chlamydomobrya squamata Korshikov → *Pyrobotrys squarrosa* (Korshikov) Korshikov

Chlamydomonas macroplastida J.W.G. Lund f. *macrostigma* Bourrelly

→ *Chlamydomonas pseudomacrostigma* L.Ş. Péterfi ex H. Ettl

Chlamydomonas media var. *eustigma* Gerloff → *Chlamydomonas media* Klebs

Chlamydomonas minima Korshikov → *Chlamydomonas perpusilla* (Korshikov) Gerloff var. *perpusilla*

Chlamydomonas monadina F.Stein var. *charkoviensis* Korshikov

→ *Chlamydomonas pseudomacrostigma* L. Ş. Péterfi ex H. Ettl

Chlamydomonas neglecta Korshikov ex Pascher → *Gungnir neglectum* (Pascher) Nakada

Chlamydomonas planoconvexa Iyengar non Lund → *Chlamydomonas neoplanoconvexa* (Iyengar) Nakada

Chlamydomonas platyrhyncha Pascher → *Chloromonas pseudoplatyrhyncha* (Pascher) Silva

Chlamydomonas polychloris Korshikov non Pascher → *Chloromonas pseudoplatyrhyncha* (Pascher) Silva

Chlorella emersonii Shihira et Krauss → *Graesiella emersonii* (Shihira et Krauss) Nozaki et al.

Chlorella fusca Shihira et Krauss var. *vacuolata* Shihira et Krauss → *Graesiella emersonii* (Shihira et Krauss) Nozaki et al.

Chlorella kessleri Fott et Nováková → *Parachlorella kessleri* (Fott et Nováková) Krienitz et al.

Chlorella protothecoides Krüger → *Auxenochlorella protothecoides* (Krüger) Kalina et Puncochárová

Chlorella zofingiensis Dönz → *Muriella zofingiensis* (Dönz) Hindák

**Chlorogonium acus* (Author unkown) → *Chlorogonium elongatum* (Dangeard) Francé

Chlorogonium fusiforme Matvienko → *Rusalka fusiformis* (Matvienko) Nakada

Chlorogonium heimii Bourrelly → *Tabris heimii* (Bourrelly) Nakada

Chlorogonium kasakii Nozaki → *Gungnir kasakii* (Nozaki) Nakada

Chlorogonium neglectum Pascher → *Gungnir neglectum* (Pascher) Nakada

- Chlorosarcinopsis delicata* S.Watanabe → ***Desmotetra delicata* (S.Watanabe) S.Watanabe**
Chroodactylon ramosum (Thwaites) Hansgirg → ***Chroodactylon ornatum* (C.Agardh) Basson**
Chroomonas atrorosea Butcher → ***Rhodomonas atrorosea* Butcher ex Hill et Wetherbee**
Chroomonas falcata Butcher → ***Rhodomonas falcata* Butcher ex Hill et Wetherbee**
Chloromonas platyrhyncha Ettl → ***Chloromonas pseudoplatyrhyncha* (Pascher) Silva**
Closterium subrostratum Krieger → ***Closterium rostratum* Ehrenberg ex Ralfs var. *subrostratum* (Krieger) Krieger**
Compsopogon helwanii El-Gamal et Salah El-Din → ***Compsopogon coeruleus* (Balbis) Montagne**
Compsopogon oishi Okamura → ***Compsopogon coeruleus* (Balbis) Montagne**
Cricosphaera roscoffensis (Dangeard) Gayral et Fresnel → ***Pleurochrysis roscoffensis* (Dangeard) Fresnel et Billard**
Cryptomonas chrysoidea Butcher → ***Rhodomonas chrysoidea* Butcher ex Hill et Wetherbee**
Cryptomonas coerulea Geitler → ***Chroomonas coerulea* (Geitler) Skuja**
Cryptomonas pseudobaltica Butcher → ***Rhodomonas baltica* Karsten**
Errerella bornhemiensis Conrad → ***Micractinium bornhemiensis* (Conrad) Korshikov**
Euastrum englerii Schmidle var. *madagascariense* Bourrelly et Mangium
→ ***Euastrum diverrucosum* Gontcharov et M.M. Watanabe**
Eudorina unicocca G.M. Smith var. *peripheralis* Goldstein → ***Eudorina peripheralis* (Goldstein) T.K. Yamada**
Graesiella vacuolata (Shihira et Krauss) Kalina et Puncochárová → ***Graesiella emersonii* (Shihira et Krauss) Nozaki et al.**
Gonium sacculiferum Scherffel → ***Basichlamys sacculifera* (Scherffel) Skuja**
Gonium sociale (Dujardin) Warming → ***Tetrabaena socialis* (Dujardin) Nozaki et Ito**
Gonium sociale (Dujardin) Warming var. *sociale* → ***Tetrabaena socialis* (Dujardin) Nozaki et Ito var. *socialis***
Gymnodinium chlorophorum Elbrachter et Schnepf
→ ***Lepidodinium chlorophorum* (Elbrachter et Schnepf) Hansen, Botes et de Salas**
Gymnodinium mikimotoi Miyake et Kominami ex Oda
→ ***Karenia mikimotoi* (Miyake et Kominami ex Oda) Hansen et Moestrup**
Gymnodinium nagasakiense Takayama et Adachi
→ ***Karenia mikimotoi* (Miyake et Kominami ex Oda) Hansen et Moestrup**
Gymnodinium sanguineum Hirasaka → ***Akashiwo sanguinea* (Hirasaka) Hansen et Moestrup**
Haematococcus pluvialis Flotow → ***Haematococcus lacustris* (Girod-Chantrans) Rostafinski**
Hafniomonas reticulata Korshikov var. *conica* (Ettl) Ettl et Moestrup → ***Hafniomonas conica* (Ettl) Nakada et Nozaki**
Hemieutreptia antiqua Hada
→ ***Chattonella marina* (Subrahmanyam) Y.Hara et Chihara var. *antiqua* (Hada) Demura et Kawachi**
Hormidium flaccidum (Kützing) Braun → ***Klebsormidium flaccidum* (Kützing) Silva, Mattox et Blackwell**
Katodinium rotundatum (Lohmann) Loeblich III → ***Heterocapsa rotundata* (Lohmann) Hansen**
Kirchneriella subcapitata Korshikov → ***Pseudokirchneriella subcapitata* (Korshikov) Hindák**
Microcystis ichthyoblabe Kützing → ***Microcystis aeruginosa* (Kützing) Lemmermann**
Microcystis novacekii (Komárek) Compère → ***Microcystis aeruginosa* (Kützing) Lemmermann**
Microcystis viridis (A.Brown) Lemmermann → ***Microcystis aeruginosa* (Kützing) Lemmermann**
Microcystis wessenbergii Komárek → ***Microcystis aeruginosa* (Kützing) Lemmermann**
Navicula seminulum Grunow → ***Sellaphora seminulum* (Grunow) D.G. Mann**
Nemalionopsis shawii Skuja f. *caroliniana* Howard et Parker → ***Nemalionopsis tortuosa* Yoneda et Yagi**
Nitella dualis Nordstedt f. *pulchella* (Allen) R.D. Wood → ***Nitella pulchella* Allen**
Nitella furcata (Roxburgh ex Brzelius) C.Agardh f. *gracilens* (Morioka) R.D. Wood → ***Nitella gracilens* Morioka**
Nitella furcata (Roxburgh ex Brzelius) C.Agardh f. *japonica* (Allen) R.D. Wood → ***Nitella japonica* Allen**
Nitella moniliformis Morioka non Zaneveld → ***Nitella moriokae* R.D. Wood**
Nitella pseudoflabellata A.Braun f. *megaspora* (J.Groves) R.D. Wood → ***Nitella megaspora* (J.Groves) Sakayama**
Nitella rigida Allen f. *moriokae* (R.D. Wood) R.D. Wood → ***Nitella moriokae* R.D. Wood**

Nitella translucens (Persoon) C.Agardh f. *axilliformis* (Imahori) R.D. Wood → ***Nitella axilliformis* Imahori**
Ochromonas malhamensis Pringsheim → ***Poterioochromonas malhamensis* (Pringsheim) Peterfi**
Oscillatoria agardhii Gomont → ***Planktothrix agardhii* (Gomont) Anagnostidis et Komárek**
Oscillatoria raciborskii Woloszynska → ***Planktothricoides raciborskii* Suda et M.M. Watanabe**
Oscillatoria redekei Van Goor → ***Limnothrix redekei* (Van Goor) Meffert**
Oscillatoria rubescens DC. ex Gomont → ***Planktothrix rubescens* (DC. ex Gomont) Anagnostidis et Komárek**
Pandorina unicocca Rayburn et Starr → ***Yamagishiella unicocca* (Rayburn et Starr) Nozaki**
Phacus agilis Skuja → ***Cryptoglena skujae* Marin et Melkonian**
Pinnularia braunii (Grunow) Cleve var. *amphicephala* sensu Mayama → ***Pinnularia valdetolerans* Mayama et H.Kobayasi**
Pleodorina illinoiensis Kofoid → ***Eudorina illinoiensis* (Kofoid) Pascher**
Porphyridium cruentum (Agardh) Nägeli → ***Porphyridium purpureum* (Bory) Drew et Ross**
Protogonyaulax affinis Inouye et Fukuyo → ***Alexandrium affine* (Inouye et Fukuyo) Balech**
Protogonyaulax catenalla (Whedon et Kofoid) Taylor → ***Alexandrium catenalla* (Whedon et Kofoid) Balech**
Protogonyaulax tamarensis (Lebour) Taylor → ***Alexandrium tamarensis* (Lebour) Balech**
Pyramimonas reticulata Korshikov → ***Hafniomonas reticulata* (Korshikov) Ettl et Moestrup**
Pyramimonas reticulata Korshikov var. *conica* Ettl → ***Hafniomonas conica* (Ettl) Nakada et Nozaki**
Raphidocelis subcapitata (Korshikov) Nygaard → ***Pseudokirchneriella subcapitata* (Korshikov) Hindák**
Scenedesmus abundans (Kirchner) Chodat → ***Desmodesmus abundans* (Kirchner) Hegewald**
Scenedesmus gutwinskii Chodat var. *heterospina* Bodrogközy
→ ***Desmodesmus subspicatus* (Chodat) Hegewald et Schmidt**
Scenedesmus serratus (Corda) Bohlin → ***Desmodesmus serratus* (Corda) Friedl et Hegewald**
Selenastrum minutum (Nägeli) Collins → ***Monoraphidium minutum* (Nägeli) Komárková-Legnerová**
Sphaerellopsis gloeocystiformis (Dill) Gerloff → ***Vitreochlamys gloeocystiformis* (Dill) Nakazawa**
Sphaerellopsis nekrassovii (Korshikov) Ettl → ***Vitreochlamys nekrassovii* (Korshikov) Nakazawa**
Sphaerellopsis ordinata Skuja → ***Vitreochlamys ordinata* (Skuja) Nakazawa**
Staurastrum dejectum Brébisson ex Ralfs → ***Staurodesmus dejectum* (Brébisson ex Ralfs) Teiling**
Synechococcus elongatus → ***Thermosynechococcus elongatus* Katoh, Itoh, Shen et Ikeuchi**
Synechococcus vulcanus → ***Thermosynechococcus vulcanus* Katoh, Itoh, Shen et Ikeuchi nom. nud.**
Tetraëdron incus (Teiling) G.M. Smith → ***Chlorotetraedron incus* (Teiling) MacEntee et al.**
Teraselmis subcordiformis (Wille) Butcher → ***Platymonas subcordiformis* (Wille) Hazen**
Uva squamata (Korshikov) Fott → ***Pyrobotrys squarrosa* (Korshikov) Korshikov**
Verrucophora verruculosa (Hara et Chihara) Eikrem
→ ***Pseudochattonella verruculosa* (Hara et Chihara) Tanabe-Hosoi et al.**

5. List of former (previously used) names

Former name and NIES No. → Current name

- Achnanthes longipes* Agardh NIES-330 → *Achnanthes subconstricta* (Meister) Toyoda
Anabaena circinalis Rabenhorst ex Bornet et Flahault NIES-833 → *Anabaena lemmermannii* Richter
Anabaena flos-aquae Brébisson ex Bornet et Flahault f. *flos-aquae* NIES-74 → *Anabaena kisseleviana* Elenkin
Anabaena mendotae Trelease NIES-808 → *Anabaena lemmermannii* Richter
Anabaena solitaria Klebahn NIES-815, NIES-816 → *Anabaena plantonica* Brunnthaler
Anabaena solitaria Klebahn f. *planktonica* (Brunnthal) Komárek NIES-834 → *Anabaena plantonica* Brunnthaler
Anabaena solitaria Klebahn f. *solitaria* NIES-80 → *Anabaena plantonica* Brunnthaler
Anabaena spiroides Klebahn NIES-806, NIES-835 → *Anabaena compacta* (Nygaard) Hickel
Anabaena spiroides Klebahn f. *spiroides* NIES-77
→ *Anabaena crassa* (Lemmermann) Komárková-Legnerová et Cronberg
Anabaena spiroides Klebahn f. *spiroides* NIES-79 → *Anabaena pseudocompacta* M.Watanabe
Anabaena spiroides Klebahn f. *spiroides* NIES-263 → *Anabaena ucrainica* (Schkorbatow) M.Watanabe
Ankistrodesmus falcatus (Corda) Ralfs NIES-2190 → *Ankistrodesmus angustus* Bernard
Ankistrodesmus falcatus (Corda) Ralfs var. *duplex* (Kützing) G.S. West NIES-2193
→ *Ankistrodesmus braunii* (Nägeli) Brunnthaler
Ankistrodesmus falcatus (Corda) Ralfs var. *mirabilis* W. et G.S. West NIES-2191 → *Ankistrodesmus angustus* Bernard
Aulosira fertilissima Ghose (in IAM) NIES-50 → *Aulosira laxa* Kirchner ex Bornet et Flauhault
Auxenochlorella sp. NIES-2342 → *Chorocystis* sp.
Basichlamys sacculifera (Scherffel) Skuja NIES-1437 → *Tetraebaena socialis* (Dujardin) Nozaki et Ito
Cachonina nieri Loeblich III NIES-614 → *Heterocapsa horiguchii* Iwataki, Takayama et Matsuoka
Carteria inversa (Korshikov) Bourrelly NIES-424, NIES-425 → *Carteria cerasiformis* Nozaki, Aizawa et M.M. Watanabe
Carteria olivieri G.S. West NIES-636 → *Carteria eugametos* Mitra
Characium maximum S.Watanabe NIES-154 → *Kentrosphaera* sp.
Chattonella antiqua (Hada) Ono
NIES-1, NIES-2, NIES-83, NIES-84, NIES-85, NIES-86, NIES-113, NIES-114, NIES-161, NIES-558, NIES-1973 (Lost)
→ *Chattonella marina* (Subrahmanyam) Y.Hara et Chihara var. *antiqua* (Hada) Demura et Kawachi
Chattonella antiqua (Hada) Ono NIES-557 → *Chattonella marina* (Subrahmanyam) Y.Hara et Chihara var. *marina*
Chattonella marina (Subrahmanyam) Hara et Chihara
NIES-3, NIES-14, NIES-115, NIES-116, NIES-117 (Lost), NIES-118, NIES-121, NIES-557, NIES-559
→ *Chattonella marina* (Subrahmanyam) Y.Hara et Chihara var. *marina*
Chattonella ovata Hara et Chihara NIES-603, NIES-671, NIES-849, NIES-1872, NIES-1873, NIES-1979 (Lost)
→ *Chattonella marina* (Subrahmanyam) Y.Hara et Chihara var. *ovata* (Y.Hara et Chihara) Demura et Kawachi
Chlamydomonas actinochloris Deason et Bold NIES-2201
→ *Chloromonas actinochloris* (Deason et Bold) Pröschold, Marin, Schlösser et Melkonian
Chlamydomonas aggregata Deason et Bold NIES-2202 → *Chlamydomonas appланата* Pringsheim
Chlamydomonas agloeformis Pascher NIES-2211 → *Chlamydomonas* sp.
Chlamydomonas akinetos Deason et Bold NIES-2203 → *Chloromonas* sp.
Chlamydomonas angulosa Dill NIES-2212 → *Chlamydomonas debaryana* Goroschankin
Chlamydomonas appланата Prinsheim NIES-2203 → *Chloromonas* sp.
Chlamydomonas augustae Skuja var. *ellipsoidea* S.Watanabe NIES-158
→ *Chloromonas augustae* (Skuja) Pröschold, Marin, Schlösser et Melkonian
Chlamydomonas brannonii Pringsheim NIES-2248 → *Chlamydomonas zebra* Korshikov ex Pascher
Chlamydomonas chlorococcoides Ettl et Schwarz NIES-2575

- *Chloromonas actinochloris* (Deason et Bold) Pröschold, Marin, Schlösser et Melkonian
Chlamydomonas coccoides Butcher NIES-1021 → *Chlamydomonas kuwadae* Gerloff
Chlamydomonas conferta Korshikov NIES-2225 → *Chlamydomonas nasuta* Korshikov
Chlamydomonas culleus Ettl NIES-2209, NIES-2210
 → *Lobochlamys culleus* (Ettl) Pröschold, Marin, Schlösser et Melkonian
Chlamydomonas debaryana Goroschankin NIES-2211 → *Chlamydomonas* sp.
Chlamydomonas dorsoventralis Pascher NIES-2213 → *Chlamydomonas noctigama* Korshikov
Chlamydomonas fimbriata Ettl NIES-2214
 → *Lobochlamys culleus* (Ettl) Pröschold, Marin, Schlösser et Melkonian
Chlamydomonas frankii Pascher NIES-2209, NIES-2210
 → *Lobochlamys culleus* (Ettl) Pröschold, Marin, Schlösser et Melkonian
Chlamydomonas gloeopara Rodhe et Skuja NIES-2208 → *Chlamydomonas asymmetrica* Korshikov
Chlamydomonas humicola Lucksch NIES-2206 → *Chlamydomonas appanata* Pringsheim
Chlamydomonas intermedia Chodat NIES-2240
 → *Lobochlamys culleus* (Ettl) Pröschold, Marin, Schlösser et Melkonian
Chlamydomonas iyengari Mitra NIES-2242 → *Chlamydomonas sphaerooides* Gerloff
Chlamydomonas monoica Strehlow NIES-2229 → *Chlamydomonas noctigama* Korshikov
Chlamydomonas monticola S.Watanabe NIES-157 → *Heterochlamydomonas* sp.
Chlamydomonas mutabilis Gerloff NIES-2224
 → *Chloromonas actinochloris* (Deason et Bold) Pröschold, Marin, Schlösser et Melkonian
Chlamydomonas parkeae Ettl NIES-1022, NIES-1733 → *Chlamydomonas* sp.
Chlamydomonas pinicola Ettl NIES-2228 → *Chlamydomonas noctigama* Korshikov
Chlamydomonas segnis Ettl NIES-2240
 → *Lobochlamys culleus* (Ettl) Pröschold, Marin, Schlösser et Melkonian
Chlamydomonas simplex Pascher NIES-2241 → *Chlamydomonas moewusii* Gerloff
Chlamydomonas sphagnophila Pascher NIES-2250 → *Chlorococcum elkhartense* Archibald et Bold
Chlorella ellipsoidea Gerneck NIES-2170 → *Chlorella vulgaris* Beijerinck
Chlorella emersonii Shihira et Krauss NIES-690 → *Graesiella emersonii* (Shihira et Krauss) Nozaki et al.
Chlorella fusca Shihira et Krauss var. *fusca* NIES-685 → *Desmodesmus abundans* (Kirchner) Hegewald
Chlorella fusca Shihira et Krauss var. *vacuolata* Shihira et Krauss NIES-687
 → *Graesiella emersonii* (Shihira et Krauss) Nozaki et al.
Chlorella ovalis Butcher NIES-2172 → *Chlorella vulgaris* Beijerinck
Chlorella protothecoides Krüger var. *mannophila* Shihira et Krauss NIES-2165
 → *Auxenochlorella protothecoides* (Krüger) Kalina et Puncochárová
Chlorella pyrenoidosa Chick NIES-2169 → *Chlorella sorokiniana* Shihira et Krauss
Chlorella pyrenoidosa Chick NIES-226, NIES-2151 → *Graesiella emersonii* (Shihira et Krauss) Nozaki et al.
Chlorella saccharophila (Krüger) Migula NIES-2189 → *Watanabea reniformis* Hanagata, Karube, Chihara et Silva
'*Chlorella' saccharophila* (Krüger) Migula NIES-2166 → *Coccomyxa* sp.
Chlorella sp. NIES-2176 → *Auxenochlorella protothecoides* (Krüger) Kalina et Puncochárová
Chlorella sp. NIES-1269 → *Chlorella vulgaris* Beijerinck
Chlorella sp. NIES-2177, NIES-2178, NIES-2179
 → *Parachlorella kessleri* (Fott et Nováková) Krienitz, Hegewald, Hepperle, Huss, Rohr et Wolf
Chlorella vulgaris Beijerinck NIES-2163 → *Auxenochlorella protothecoides* (Krüger) Kalina et Puncochárová
Chlorella vulgaris Beijerinck NIES-2167, NIES-2168 → *Chlorella sorokiniana* Shihira et Krauss
Chlorella vulgaris Beijerinck NIES-2171 → *Chlorella* sp.
Chlorella vulgaris Beijerinck NIES-2166 → *Coccomyxa* sp.

Chlorella vulgaris Beijerinck NIES-2161, NIES-2162

→ *Parachlorella kessleri* (Fott et Nováková) Krienitz, Hegewald, Hepperle, Huss, Rohr et Wolf

Chlorogonium acus NIES-751 → *Chlorogonium elongatum* (Dangeard) Francé

Chlorogonium elongatum Dangeard NIES-742 → *Chlorogonium capillatum* Nozaki, M.M. Watanabe et Aizawa

Chlorogonium elongatum (Dangeard) Dangeard NIES-745, NIES-746, NIES-748

→ *Chlorogonium capillatum* Nozaki, M.M. Watanabe et Aizawa

Chlorogonium elongatum (Dangeard) Dangeard NIES-754, NIES-757, NIES-760

→ *Chlorogonium euchlorum* (Ehrenberg) Ehrenberg

Chlorogonium euchlorum Ehrenberg NIES-749 → *Chlorogonium capillatum* Nozaki, M.M. Watanabe et Aizawa

Chlorogonium euchlorum Ehrenberg NIES-758 → *Chlorogonium euchlorum* (Ehrenberg) Ehrenberg

Chlorogonium metamorphum Skuja NIES-446 → *Chlamydomonas tetragama* (Bohlin) Ettl

Chlorogonium metamorphum Skuja NIES-123 → *Rusalka fusiformis* (Matvienko) Nakada

Chlorogonium sp. NIES-744, NIES-747 → *Chlorogonium capillatum* Nozaki, M.M. Watanabe et Aizawa

Chlorogonium sp. NIES-752, NIES-753 → *Chlorogonium elongatum* (Dangeard) Francé

Chlorogonium sp. NIES-755, NIES-756, NIES-759 → *Chlorogonium euchlorum* (Ehrenberg) Ehrenberg

Chlorogonium sp. NIES-761 → *Gungnir kasakii* (Nozaki) Nakada

Chlorogonium tetragamum Bohlin NIES-743, NIES-750, NIES-742

→ *Chlorogonium capillatum* Nozaki, M.M. Watanabe et Aizawa

Chloromonas miwae (Fukushima) Muramoto NIES-2379, NIES-2380 → *Chloromonas* sp.

Chlorosarcinopsis caeca S.Watanabe NIES-160 → *Chlorokybus* sp.

Draparnaldia plumosa (Vaucher) Agardh NIES-454 → *Stigeoclonium* sp.

Eudorina unicocca G.M. Smith var. *unicocca* NIES-724 → *Eudorina unicocca* G.M. Smith

Eudorina unicocca G.M. Smith var. *unicocca* NIES-725 → *Eudorina unicocca* G.M. Smith

Hafniomonas montana (Geitler) Ettl et Moestrup NIES-257 → *Hafniomonas laevis* Nakada, Suda et Nozaki

Heterocapsa pygmaea Lobelich III, Schmidt et Sherley NIES-472 → *Heterocapsa ovata* Iwataki et Fukuyo

Heterocapsa pygmaea Lobelich III, Schmidt et Sherley NIES-473

→ *Heterocapsa pseudotriquetra* Iwataki, Hansen et Fukuyo

Hormidium barlowi NIES-2285 → *Klebsormidium flaccidum* (Kützing) Silva, Mattox et Blackwell

Hormidium flaccidum (Kützing) A.Braun NIES-2286 → *Klebsormidium flaccidum* (Kützing) Silva, Mattox et Blackwell

Melosira granulata (Ehrenberg) Ralfs var. *angustissima* O.Müller f. *spiralis* O.Müller NIES-333

→ *Aulacoseira granulata* (Ehrenberg) Simonsen

Microcystis aeruginosa (Kützing) Lemmermann f. *aeruginosa*

NIES-44, NIES-87, NIES-88, NIES-89, NIES-90, NIES-91, NIES-99, NIES-100, NIES-101, NIES-298, NIES-299

→ *Microcystis aeruginosa* (Kützing) Lemmermann

Microcystis aeruginosa (Kützing) Lemmermann f. *flos-aquae* (Wittrock) Elenkin NIES-98, NIES-478

→ *Microcystis aeruginosa* (Kützing) Lemmermann

Microcystis ichthyoblae Kützing

NIES-1026, NIES-1061, NIES-1070, NIES-1079, NIES-1090, NIES-1105, NIES-1122, NIES-1182

→ *Microcystis aeruginosa* (Kützing) Lemmermann

Microcystis ichthyoblae Kützing NIES-1183 → *Microcystis aeruginosa* (Kützing) Lemmermann

Microcystis novacekii (Komárek) Compère NIES-901, NIES-1053, NIES-1068, NIES-1143

→ *Microcystis aeruginosa* (Kützing) Lemmermann

Microcystis viridis (A.Brown) Lemmermann

NIES-102, NIES-103, NIES-1058, NIES-1059, NIES-1091, NIES-1102, NIES-1103, NIES-1104, NIES-1114,

NIES-1118, NIES-1136, NIES-1180, NIES-1354, NIES-1355

→ *Microcystis aeruginosa* (Kützing) Lemmermann

Microcystis wesenbergii Komárek

NIES-104, NIES-105, NIES-106, NIES-107, NIES-108, NIES-109, NIES-110, NIES-111, NIES-112, NIES-604, NIES-1055, NIES-1056, NIES-1057, NIES-1062, NIES-1067, NIES-1084, NIES-1106, NIES-1111, NIES-1112, NIES-1119, NIES-1120, NIES-1121, NIES-1128, NIES-1129, NIES-1137, NIES-1138, NIES-1144, NIES-1145, NIES-1158, NIES-1167, NIES-1168, NIES-1170, NIES-1171, NIES-1172, NIES-1175, NIES-1181, NIES-1193, NIES-1202, NIES-1207, NIES-1208, NIES-1251, NIES-1252, NIES-1253, NIES-1254, NIES-1255, NIES-1256

→ *Microcystis aeruginosa* (Kützing) Lemmermann

Mychonastes sp. NIES-2333, NIES-2335, NIES-2337, NIES-2338 → *Choricystis* sp.

Nanochlorum sp. NIES-1270 → *Picochlorum* sp.

Nitella furcata (Roxburgh ex Brzelius) C.Agardh NIES-1616 → *Nitella moriokae* R.D. Wood

Oscillatoria agardhii Gomont NIES-610 → *Planktothrix rubescens* (DC. ex Gomont) Anagnostidis et Komárek

Oscillatoria bourrellyi J.W. G. Lund f. *tenuis* Skuja NIES-846 → *Tychonema bourrellyi* Anagnostidis et Komárek

Phaeocystis pouchetii (Hariot) Lagerheim NIES-388 → *Phaeocystis globosa* Scherffel

Phaeocystis sp. NIES-1396 → *Phaeocystis globosa* Scherffel

Phormidium tenue (C.Agardh ex Gomont) Anagnostidis et Komárek NIES-30 → *Leptolyngbya* sp.

Phormidium tenue (C.Agardh ex Gomont) Anagnostidis et Komárek NIES-512 → *Pseudanabaena galeata* Böcher

Phormidium tenue (C.Agardh ex Gomont) Anagnostidis et Komárek NIES-611 → *Pseudanabaena* sp.

Prototheca cifferii Negroni et Blaisten NIES-2182

→ *Prototheca portoricensis* Cifferi, Ashford et Dalmau var. *cifferii* (Negroni et Blaistin) Cifferi, Ashford et Dalmau

Rhodomonas chrysoidea Butcher ex Hill et Wetherbee NIES-1005 → *Rhodomonas* sp.

Scenedesmus acutus Meyen NIES-2158

→ *Parachlorella kessleri* (Fott et Nováková) Krienitz, Hegewald, Hepperle, Huss, Rohr et Wolf

Scenedesmus nanus Chodat NIES-2277, NIES-2278 → *Desmodesmus* sp.

Scenedesmus quadricauda (Turpin) Brébisson sensu Chodat NIES-96 → *Desmodesmus* sp.

Selenastrum capricornutum (Printz) Nygaard NIES-35 → *Pseudokirchneriella subcapitata* (Korshikov) Hindák

Skeletonema costatum (Greville) Cleve NIES-16, NIES-17, NIES-223, NIES-323, NIES-324 → *Skeletonema*

marinoi-dohrnii complex

Sphaerellopsis aulata Pascher NIES-878 → *Vitreochlamys aulata* (Pascher) Batko

Spirulina platensis (Gomont) Geitler NIES-39, NIES-45, NIES-46, NIES-597

→ *Arthrosira platensis* (Nordstedt) Gomont

Trebouxia arboricola Puymaly NIES-2183 → *Pseudotrebouxia corticola* Archibald

Tribonema marinum J.Feldmann NIES-548 → *Acinetospora crinita* (Carmichael) Sauvageau

Volvox prolificus Iyengar NIES-543 → *Volvox kirkiorum* Nozaki, Kawai-Toyooka et Isaka

6. List of lost strains

Strain No. (NIES-)	Scientific Name	Locality (Date of collection)
11	<i>Gymnodinium sanguineum</i>	Japan Harima-Nada (1979-01-**)
13	<i>Prorocentrum triestinum</i>	Japan Osaka Osaka Bay (1982-08-03)
20	<i>Melosira ambigua</i>	Japan Ibaraki Tsuchiura (1983-10-03)
117	<i>Chattonella marina</i> var. <i>marina</i>	Japan Kagawa Naoshima (1982-07-30)
126	<i>Closterium acerosum</i>	Nepal Muna (1965-11-12)
140	<i>Gymnodinium breve</i>	Japan Harima-Nada (1979-06-09)
141	<i>Gymnodinium sanguineum</i>	Japan Kagawa Uchinomi Bay (1979-05-30)
142	<i>Gyrodinium falcatum</i>	Japan Harima-Nada (1981-10-14)
143	<i>Gyrodinium instriatum</i>	Japan Kagawa Shodoshima Shodo Isl. (1978-06-25)
149	<i>Hyalotheca dissiliens</i>	Japan Ibaraki Lake Kasumigaura (1975-12-16)
219	<i>Prorocentrum triestinum</i>	Japan Kochi Nomi Bay (1980-04-30)
220	<i>Alexandrium catenella</i>	Japan Kagawa Tsuda Bay (1980-06-17)
222	<i>Pyrophacus steinii</i>	Japan Harima-Nada (1981-07-04)
239	<i>Alexandrium tamarensense</i>	Japan Harima-Nada (1982-03-25)
249	<i>Gymnodinium nagasakiense</i>	Japan Harima-Nada (1980-08-21)
260	<i>Closterium aciculare</i> var. <i>subpronum</i>	Japan Ibaraki Lake Kasumigaura (1983-11-28)
270	<i>Chaetoceros debile</i>	Japan Aomori Hachinohe Harbor (1985-01-06)
272	<i>Coscinodiscus asteromphalus</i>	Japan Mie Matoya Bay (1984-09-01)
273	<i>Coscinodiscus granii</i>	Japan Aomori Hachinohe Harbor (1985-01-06)
307	<i>Pleurotaenium ehrenbergii</i> var. <i>curtum</i>	Japan Wakayama Naka-gun (1969-10-**)
314	<i>Prorocentrum dentatum</i>	Japan Hiuchi-Nada (1979-12-13)
317	<i>Prorocentrum mexicanum</i>	Japan Harima-nada (----)
318	<i>Protoceratium reticulatum</i>	Japan Mie Matoya Bay (1984-09-01)
321	<i>Pyrophacus steinii</i>	Japan Mie Matoya Bay (1984-09-01)
327	<i>Stephanopyxis palmeriana</i>	Japan Tokyo Hachijo Isl. (1984-04-19)
332	<i>Melosira granulata</i> var. <i>angustissima</i>	Japan Ibaraki Lake Kasumigaura (1983-10-04)
352	<i>Eunotia serra</i> var. <i>serra</i>	Japan Gunma Tsukiyono Lake Ominenuma (1985-07-18)
354	<i>Gyrodinium instriatum</i>	Japan Shizuoka Shimoda Harbor (1985-05-23)
358	<i>Nitzschia longissima</i> var. <i>reversa</i>	Japan Shizuoka Kawazu Imaihamo (1985-05-22)
364	<i>Peridinium bipes</i> f. <i>occultatum</i>	Japan Kagoshima Lake Unagiike (1985-02-20)
367	<i>Pinnularia acrosphaeria</i> var. <i>acrosphaeria</i>	Japan Gunma Tsukiyono (1984-06-01)
368	<i>Pinnularia gentilis</i>	Japan Gunma Tsukiyono (1985-07-17)
370	<i>Synedra ulna</i> var. <i>ulna</i>	Japan Ibaraki Edosaki Lake Kasumigaura (1985-04-25)
371	<i>Tabellaria flocculosa</i>	Japan Ibaraki Tsuchiura (1985-04-13)
376	<i>Ceratium hirundinella</i>	Japan Ibaraki Lake Hinuma (1986-06-27)
383	<i>Leptocylindrus danicus</i>	Japan Shizuoka Minamiizu Mera Harbor (1985-05-23)
386	<i>Peridinium penardiforme</i>	Japan Kochi Kochi (1982-02-09)
399	<i>Aspidisca costata</i>	Japan Ibaraki Tsukuba (1986-04-09)
400	<i>Oxytricha fallax</i>	Japan Ibaraki Tsukuba (1986-06-27)
401	<i>Paramecium bursaria</i>	Japan Ibaraki Tsukuba (1986-04-09)
404	<i>Vorticella convallaria</i>	Japan Ibaraki Tsukuba (1986-04-11)
406	<i>Achnanthes lanceolata</i>	Japan Ibaraki Miyata River (1987-04-21)
441	<i>Chlamydomonas parkeae</i>	Japan Aomori Hachinohe Harbor (1985-01-06)
470	<i>Gymnodinium fuscum</i>	Japan Ibaraki Tsuchiura (1986-02-**)
482	<i>Nephroselmis</i> aff. <i>rotunda</i>	Japan Hyogo Ieshima Isls. (1984-08-10)

Strain No. (NIES-)	Scientific Name	Locality (Date of collection)
488	<i>Nitzschia palea</i>	Japan Ibaraki Miyata River (1987-02-25)
496	<i>Peridinium bipes f. occultatum</i>	Japan Mie Isobe (1986-10-25)
498	<i>Peridinium cunningtonii</i>	Japan Miyagi Shiogama (1988-07-11)
499	<i>Peridinium inconspicuum</i>	Japan Ibaraki Iwai (1985-10-29)
500	<i>Peridinium polonicum</i>	Japan Miyagi Shiogama (1988-07-11)
502	<i>Peridinium wierzejskii</i>	Japan Ibaraki Tsuchiura (1985-04-13)
508	<i>Phormidium luridum</i>	Japan Ibaraki Takatori River (1984-12-11)
511	<i>Phormidium ramosum</i>	Japan Gunma Watarase River (1987-08-15)
513	<i>Pinnularia gibba</i>	Japan Hokkaido Sapporo Shirai River (1987-07-02)
516	<i>Prorocentrum balticum</i>	Japan Aomori Hachinohe (1988-08-22)
517	<i>Prorocentrum lima</i>	Japan Aomori Lake Obuchinuma (1987-08-04)
518	<i>Protogonyaulax affinis</i>	Japan Harima-Nada (1980-09-05)
519	<i>Alexandrium catenella</i>	Japan Mie Owase Bay (-----)
520	<i>Alexandrium catenella</i>	Japan Aomori Hachinohe Harbor (1988-08-22)
521	<i>Alexandrium tamarensis</i>	Japan Aomori Hachinohe (1988-08-22)
525	<i>Pyramimonas tetrarhynchus</i>	Japan Hokkaido Sapporo (1986-04-**)
526	<i>Scrippsiella precaria</i>	Japan Aomori Hachinohe (1988-08-22)
535	<i>Thalassiosira pacifica</i>	Japan Aomori Hachinohe Harbor (1987-03-02)
552	<i>Actinoptycus senarius</i>	Japan Ibaraki Hitachi (1990-09-26)
554	<i>Melosira varians</i>	Japan Ibaraki Tsukuba (1990-11-**)
555	<i>Tabellaria fenestrata</i>	Japan Ibaraki Tsuchiura (1991-10-31)
563	<i>Chrysochromulina hirta</i>	Japan Miyagi Shizugawa (1991-11-08)
591	<i>Stephanodiscus invistitatus</i>	Japan Ibaraki Lake Kasumigaura (1990-03-14)
599	<i>Peridinium bipes</i>	Japan Nara Fuya Dam (1989-02-16)
600	<i>Peridinium bipes</i> var. <i>tabulatum</i>	Japan Ibaraki Tsuchiura, Shishizuka (1990-04-01)
606	<i>Rhodomonas ovalis</i>	Japan Hiroshima Seto Inland Sea (1966-10-**)
607	<i>Gymnodinium sanguineum</i>	Japan ----- (1981-**-**)
616	<i>Ostreopsis siamensis</i>	Japan Okinawa Motobu (1993-06-06)
619	<i>Woloszynskia leopoliense</i>	Japan Ibaraki Mitsukaido Mitsukaido (1985-04-13)
625	<i>Cymbomonas teramitiformis</i>	Japan Kagawa Seto Inland Sea (1989-02-14)
627	<i>Astrephomene gubernaculifera</i>	Japan Kanagawa Hayama (1980-12-04)
668	<i>Paramecium bursaria</i>	Japan Fukushima Miyatoko Mire (1993-05-27)
669	<i>Paramecium bursaria</i>	Japan Fukushima Miyatoko Mire (1993-05-27)
673	<i>Alexandrium affine</i>	Japan Harima-nada (1980-09-05)
674	<i>Alexandrium catenella</i>	Japan Harima-nada (1980-06-17)
676	<i>Alexandrium catenalla</i>	Japan Kochi Uranouchi Bay (1988-05-06)
679	<i>Gymnodinium breve</i>	Japan Harima-nada (1979-06-01)
680	<i>Karenia mikimotoi</i>	Japan Kagawa Shodo Isl., Uchiumi Bay (1992-10-29)
681	<i>Prorocentrum balticum</i>	Japan Harima-nada (1987-04-20)
683	<i>Prorocentrum sigmooides</i>	Japan Kagawa Shodo Isl., Uchiumi Bay (1985-10-11)
775	<i>Micrasterias anomala</i>	Malaysia near Melaka (1985-08-20)
899	<i>Ceratium fusus</i>	Japan Tokyo Bay (2000-06-14)
924	<i>Planktothricoides raciborskii</i>	Thailand ----- Phatchanbari Dam (-----)
1010	<i>Proboscia alata</i>	East China Sea (2002-06-**)
1023	<i>Spirogyra sp.</i>	Japan Ibaraki Tsukuba, Onogawa inside NIES (2002-04-26)
1024	<i>Pedinella squamata</i>	Japan Miyagi ----- off Kinkazan (1993-05-**)
1049	<i>Eucampia zodiacus</i>	Japan Mie Ise Bay (2002-05-**)

Strain No. (NIES-)	Scientific Name	Locality (Date of collection)
1306	<i>Calcidiscus leptopus</i>	East China Sea (2003-08-06)
1323	<i>Umbilicosphaera sibogae</i> var. <i>foliosa</i>	Japan Tokyo Hachijo Isl., Yaene Harbor (2002-07-30)
1351	<i>Pinnularia acidojaponica</i>	Japan Miyagi Naruko Katanuma (2001-11-05)
1352	<i>Pinnularia valdetolerans</i>	Japan Kanagawa Kawasaki, Shin-Yokohama Tsurumi River (2002-06-09)
1390	Unidentified colorless flagellate	Japan Ibaraki Tsukuba, Tennodai Hyotaro-ike Pond (2003-01-16)
1598	<i>Chara globularis</i>	Japan Hokkaido Nemuro Lake Nanbu-numa (1999-08-25)
1600	<i>Chara globularis</i>	Japan Aomori Lake Towada (1999-09-07)
1625	<i>Nitella japonica</i>	Japan Kagawa Mannou Mannou (2004-06-16)
1626	<i>Nitella japonica</i>	Japan Kagawa Mannou (2004-06-16)
1627	<i>Nitella megaspora</i>	Japan Gunma
1630	<i>Nitella mirabilis</i> var. <i>inokasiraensis</i>	Japan Chiba Junsai-ike Pond (2002-10-17)
1631	<i>Nitella mirabilis</i> var. <i>inokasiraensis</i>	Japan Chiba Junsai-ike Pond (2002-10-17)
1731	<i>Kathablepharis</i> sp.	U.S.A. North Carolina Neuse River (1998-12-01)
1732	<i>Prorocentrum micans</i>	East China Sea (2004-11-**)
1734	<i>Compsopogon coeruleus</i>	Japan Kagoshima Tatsugo, Oogachi Kin River (2005-05-03)
1842	<i>Nuclearia</i> sp.	Japan Tochigi Nikko Lake Yunoko (2005-04-**)
1844	Unidentified flagellate metamonad	Japan Kagoshima Yamakawa Yamakawa Harbor (2005-03-15)
1845	<i>Ostreopsis</i> sp.	Japan Okinawa Akajima Isl. (2004-10-21)
1847	<i>Chara braunii</i>	Japan Gunma Lake Haruna (2004-07-27)
1866	<i>Lepidodinium chlorophorum</i>	East China Sea (2004-07-28)
1867	<i>Lepidodinium chlorophorum</i>	East China Sea (2004-07-28)
1962	<i>Anorthoneis</i> sp.	Japan Kagoshima Kagoshima Bay (2006-03-**)
1973	<i>Chattonella marina</i> var. <i>antiqua</i>	Japan Kagawa Higashikagawa Seto Inland Sea (2005-08-01)
1979	<i>Chattonella marina</i> var. <i>ovata</i>	East China Sea (2003-08-04)
1990	<i>Alexandrium</i> sp.	Japan Seto Inland Sea (2005-05-12)
1992	<i>Alexandrium</i> sp.	Japan Seto Inland Sea (2005-05-12)
1994	<i>Alexandrium</i> sp.	Japan Seto Inland Sea (2005-05-12)
1995	<i>Cochlodinium polykrikoides</i>	Japan Seto Inland Sea (2005-08-01)
1996	<i>Gymnodinium catenatum</i>	Japan Seto Inland Sea (2005-08-01)
1997	<i>Gymnodinium catenatum</i>	Japan Seto Inland Sea (2005-08-01)
1998	<i>Gymnodinium catenatum</i>	Japan Seto Inland Sea (2005-05-12)
1999	<i>Gymnodinium catenatum</i>	Japan Seto Inland Sea (2005-05-12)
2001	<i>Gyrodinium instriatum</i>	Japan Seto Inland Sea (2005-08-01)
2005	<i>Gymnodinium</i> sp.	Japan Seto Inland Sea (2005-05-12)
2006	<i>Gymnodinium</i> sp.	Japan Fukushima Soma Soma Harbor (2005-06-17)
2012	<i>Prorocentrum dentatum</i>	East China Sea (2006-06-**)
2092	<i>Microcystis aeruginosa</i>	Japan Ibaraki Tsuchiura Lake Kasumigaura (2007-09-09)
2366	<i>Cyclotella meneghiniana</i>	Japan Saitama Namegawa, Yamada (2006-07-10)
2409	<i>Cochlodinium polykrikoides</i>	Japan Nagasaki Unzen Tachibana Bay (2002-07-23)
2410	<i>Gymnodinium catenatum</i>	Japan Nagasaki Hirado Usuka Bay (2008-06-11)
2446	<i>Cercomonas parincurva</i>	U.K. Oxford (2006-**-**)
2447	<i>Cercomonas rotunda</i>	U.K. Oxford (2006-**-**)
2448	<i>Cercomonas sphagnicola</i>	U.K. Loch Lomond (1998-**-**)
2523	<i>Roombia truncata</i>	Canada Nova Scotia Blomidon Beach (2008-07-30)
2524	<i>Roombia truncata</i>	Canada Nova Scotia Blomidon Beach (2008-07-30)

7. Restrictions about strains photos

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List of Strains, 9th Edition (2013)
Microalgae, Endangered Macroalgae and Protists

Kawachi, M., Ishimoto, M., Mori, F., Yumoto, K., Sato, M., Noël, M.-H. 2013.
MCC-NIES List of Strains, 9th Edition, Microbial Culture Collection at
National Institute for Environmental Studies, Tsukuba, Japan.



MCC-NIES List of Strains
The 9th Edition published 2013

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